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FURTHER FALLACIES OF THE SHEPPARD-TOWNER PROPAGANDA

By WILLIAM C. WOODWARD
Executive Secretary, Bureau of Legal Medicine and Legislation of the American Medical Association, Chicago

THE EDITOR—Not only the American Medical Association, but practically all other organizations of educated physicians opposed the passage of the Sheppard-Towner Law. After seeing the results of its operation, they are even more strongly opposed to its continuance, which is now being actively urged before Congress.

This not because better maternity service and improved infant welfare are not needed; not because, as is frequently charged, of danger to the selfish interests of physicians, but because it initiates and fosters the practice of a difficult specialty of personal health medicine by official public health organizations, farm bureaus, boards of education, technicians, artisans, uplifters and what-not, under the control of a lay bureau of the federal government; because one of its chief consequences is to disturb or destroy that confidential, sympathetic and necessary relationship that must exist between the patient and the physician of her choice; and because such legislation is fraught with untold dangers of many other kinds to the health, happiness and general welfare of our mothers and children.

Whatever influences combined to secure this law, they were not based on the intelligent reasoning of those best able to judge, but rather upon a dramatized emotionalism so easy to arouse by well-directed publicity.

The same influences that secured the original law, plus an army of employees now engaged in executing and expanding its provisions, are at Congress again to continue and extend the federal government's bureaucratic control over this major field of the practice of personal health medicine.

Much of the propaganda put out by proponents of this measure has been characterized by glittering generalities rather than by clear thinking and analyses of facts.

The present campaign for the continuance of the appropriation of millions for the salaries of thousands of near-doctors to continue the law is largely characterized by generalities and downright misuse of facts, as is so clearly shown by Doctor Woodward in this article.

Unless additional legislation is enacted by Congress, the pernicious Sheppard-Towner Law will die a natural death on June 30, 1927.

A bill authorizing extension of the act has passed the House. In the Senate, the Committee on Education and Labor has recommended the passage of the House Bill, but recommended that the period of the proposed extension be reduced from two years to one and that a definite date for the discontinuance of aid under the Sheppard-Towner Act be now fixed. With those recommendations the bill now awaits action by the Senate. In the meantime another bill (H. R. 10986, "A bill to repeal an act entitled 'An act for the promotion of the welfare and hygiene of maternity and infancy, and for other purposes,' approved November 23, 1921, and amendment thereto") has been introduced in the House of Representatives.

The Sheppard-Towner Act authorizes federal appropriations to stimulate and aid the states in protecting and promoting the health of mothers and infants. It denies aid, however, to every state that will not subject its activities to the supervision and control of the children's Bureau, a lay bureau in the Department of Labor, and a federal board of two laymen and one doctor.

The proponents of the Sheppard-Towner Act claim that the interest of the federal government in mothers and babies justifies it in subsidizing in their behalf state health activities and in taking over the supervision and control of them. If so, the interest of the federal government in persons of other ages obviously would justify it in providing subsidies in their behalf and in taking over the supervision and control of health work for them also.

Boys and girls, the youth of the country, and men and women of all ages are as important factors in the life of the nation as are infants and mothers. The wealth of the nation has already been expended to make them producing economic units in community life and to make them available to protect the nation in case of war. To them, the federal government must look for the care and nurture of coming generations, and even for the care and nurture of mothers and infants, on whose behalf the Sheppard-Towner Act expresses such solicitude. Obviously the federal government has an interest in youth and adults quite as great as its interest in mothers and babies. If the federal government has the power to buy from the states the right to supervise and control health activities in behalf of mothers and infants, it has the power to buy also the right to supervise and control health work for youth and adults. **But if the federal government can buy from the states the right to supervision and control of state health activities, vested by the Constitution in the states, there is no reason why the federal government should not likewise buy other constitutional rights of the states. It is to that end that the Sheppard-Towner Act seems to lead. The accomplishment of that end will be coincident with the destruction of our present system of government.**

Physicians and other persons who are interested in the facts about the Sheppard-Towner variety of paternalism will get them from Woodward's article in the May issue, Bulletin A. M. A., from which the above paragraph is quoted, and from the following article dealing with furth r fallacies of this pernicious legislation:

1. *In support of pending legislation to authorize appropriations to carry the Sheppard-Towner Act into effect for two years beyond the date originally set for it to expire, it is urged that this is merely a temporary expedient, designed to prevent the loss of the money and effort already expended under the act. The record shows, however, that is not the case. The extension of the Sheppard-Towner Act now sought, for two years only, is merely one of a series of extensions that*

be sought if this extension be granted. In fact, proponents of the Sheppard-Towner plan regard the act as permanent legislation.

In the report of the hearing before the Committee on Interstate and Foreign Commerce, House of Representatives, January 14, 1926, on H. R. 7555, the bill authorizing further appropriations for carrying the Sheppard-Towner Act into effect on page 51, we find the following statement by Miss Grace Abbott, Chief of the Children's Bureau:

"The committee is familiar with the fact *that the legislation enacted in the maternity and infancy act is permanent;* the only thing that is not permanent is the authorized appropriation for the five-year period."

In the "Congressional Record," April 5, 1926, page 6725, the same view was stated by Representative Barkley, when he spoke in support of the bill:

"My only regret is that this authorization is limited to two years. *I would advise, gentlemen, of the fact that this is permanent legislation. The Sheppard-Towner Bill is a permanent law.* It only provided originally for a five-year authorization of appropriations. This merely extends the authorization two years, *but the law itself is permanent law. . . .* "

The same view was adopted by Senator Sheppard, in the "Congressional Record," April 14, 1926, page 7254:

"As to the present status of the measure, let me add that, after consultation with the Budget Bureau and the President, the Secretary of Labor, transmitted to Congress a recommendation for the continuation of the appropriations under the maternity act for two additional years. *The act itself is permanent legislation.*"

It could not well be made clearer that the proponents of this legislation expect to keep the Sheppard-Towner plan as a permanent part of our federal organization. But whether they do or do not plan to go that far, it is clear that they have no intention whatsoever of abandoning the scheme at the end of the two-year extension they now seek. For turning to the printed report of the hearing before the Committee on Interstate and Foreign Commerce, House of Representatives, we find the following:

"Mr. Newton. Now this further question. Do you consider that the two years is sufficient?

"Miss Abbott. Well, I do not consider it sufficient if it is to end at the two-year period. I did not think in asking that period of time that that was the intention either of the Secretary of (or) the President that there was to be no further extension after the two-year period." Page 12.

. . . . . .

"Mr. Lea. What time would you specify for a certainty that, in your judgment, the United States should remain in this work?

"Miss Abbott. Well, I do not want to specify for a certainty.

"Mr. Lea. Do you think four years?

"Miss Abbott. No; I would rather say five as the time that the Government would without question need to continue the work.

"Mr. Lea. You are certain that the Government should stay in for five years?

"Miss Abbott. Personally, I am; yes. But I am supporting the recommendation of the Secretary and the President for the two-year period, with a view to showing accomplishments and needs still existing at the end of that time." Page 14.

. . . . . .

"Mr. Rayburn. You would not hazard an opinion on just when you think you could recommend that the Government go out of this supervision?

"Miss Abbott. No; because I think it is a factual thing. I am not a prophet, after all, as to when that condition may come to pass." Page 15.

With such testimony as that of Miss Abbott, the statement that has been made in support of the pending bill, that "there is no disposition to extend federal co-operation beyond the next one or two years," is certainly without foundation.

2. *Attempts to justify an extension of the life of the Sheppard-Towner Act by showing the extent of activities in the field of maternal and infant hygiene since that act was passed are inadequate unless they show the results of such activities, and this they do not do.*

"Child-health conferences," "school conferences," "infant clinics," "institutes," "public talks," "patterns distributed," "milk letters, with instructions to mothers," and similar activities ("Congressional Record," April 14, 1926, pages 7254-7272) are at best merely agencies to conserve health and life. Evidence showing only that such activities are going on does not prove that they are accomplishing that result. Such evidence is even further from proving that such activities are being conducted efficiently and economically, or that they are being conducted under the Sheppard-Towner Act better than they could have been conducted by the states alone. The evidence offered is inadequate, too, to permit intelligent judgment as to the relation of such activities to the Sheppard-Towner Act, for such evidence very generally fails to show the nature and extent of similar activities in the same jurisdictions before the act was passed.

3. *The assertions that have been made that there have been substantial reductions in infant and maternal mortality, with the implication that such reductions have been due to the Sheppard-Towner Act, are not supported by the evidence.*

In the "Congressional Record," April 5, 1926, on page 6720, in the argument of Representative Newton in support of the act, the following appears:

"Since the operation of this act there has been a substantial decrease in both the infant mortality and the maternity death rates."

Representative Newton then submits tables showing that in the three Sheppard-Towner years, 1922-1924, inclusive, the infant mortality rate for the registration area fell from 76 to 72, and the maternal mortality rate fell from 6.8 to 6.6. Such a decline could hardly be regarded as "substantial." But even if it were, it could not be accepted as an argument in favor of the Sheppard-Towner Act; for during the three years immediately preceding, namely, 1919-1921, inclusive, the infant mortality rate fell from 101 to 76, and the maternal mortality rate fell from 9.2 to 6.8. Of course we know that the improvement shown by the figures last stated was only relative and that the decline was great because of the high mortality due to influenza in the year preceding the triennium named and from which the decline is computed. But what the improvement in 1922-1924 was due to, and how long it will continue, we do not know.

As a fallacious argument offered in support of the Sheppard-Towner Bill recently passed by the House, we find the following by Representative Barkley,

in the "Congressional Record," April 5, 1926, page 6725:

"Taking the United States as a whole, in 1920, which was the year before the enactment of this law, the number of children who died in infancy amounted to 86 out of every 1000 in the United States. In 1924, four years after the passage of this law, the death rate among children in the United States had been reduced from 86 to 71 per 1000. This is a reduction of nearly 20 per cent in less than four years."

The Sheppard-Towner Act was not approved until November 23, 1921. Obviously its enactment could not have influenced the infant mortality rate for 1921. Why, then, did not Representative Barkley take the infant mortality rate for 1921 as a basis for comparison, instead of the infant mortality rate for 1920? The infant mortality rate for 1921 was 76. The decline, therefore, under the Sheppard-Towner régime was from 76 to 72. It was only 5 per cent in three years, not 20 per cent in less than four years as stated. And no evidence is offered to show that the Sheppard-Towner Act had anything to do with even such decline as did occur.

4. *Statements made to show the extent to which infant and maternal mortality are preventable, in support of an argument for the enactment of the pending legislation, are without adequate foundation.*

In the "Congressional Record," March 31, 1926, page 6434, Senator Sheppard is quoted as referring to certain studies and investigations made by the Children's Bureau as follows:

"It was found that nearly 20,000 mothers and almost 200,000 infants under 1 year of age were dying in the United States every year *from lack of proper knowledge as to the hygiene of maternity and infancy.*"

As a matter of fact, according to the Twenty-fourth Annual Report of the Bureau of the Census, covering Mortality Statistics, 1923, published in 1926, page 126, there were in the entire registration area of the United States in 1923, only 166,274 deaths of children less than 1 year old from all causes. The estimated population of the registration area was 96,986,371, and the estimated population of the entire continental United States was only 110,663,502. (See Report cited, page 8.) And yet, unless Senator Sheppard has misinformed us, investigations by the Children's Bureau disclosed the fact that almost 200,000 infants under 1 year of age die in the United States every year *from lack of proper knowledge as to the hygiene of maternity and infancy.* If the reported findings of the Children's Bureau are correct, where do the extra 34,000 babies come from each year who die from lack of proper knowledge? And where do all the babies come from who die every year from other causes?

A similar discrepancy exists with respect to maternal mortality. In support of the Sheppard-Towner Act, the Children's Bureau is quoted as authority for the statement that "nearly 20,000 mothers . . . were dying in the United States every year from lack of proper knowledge as to the hygiene of maternity and infancy." And yet the report of the Census Bureau, cited above, page 176, shows that the total number of deaths in 1923 in the entire registration area, containing nearly nine-tenths of the population of the continental United States, from accidents of pregnancy and labor, and hemorrhage, blood poisoning and other conditions incident to the puerperal state, was only 15,505.

5. *Comparisons between maternal mortality in the United States and maternal mortality in other countries, to the discredit of the United States, are not justified by comparable records.*

Referring to studies and investigations made by the Children's Bureau, Senator Sheppard, according to the "Congressional Record," March 31, 1926, page 6434, said:

"Reports from the birth-registration area of the United States showed that from 1915 to 1920 the death rate of mothers from causes relating to maternity was increasing. It was shown that the death rate of mothers in the United States from these causes was the highest for any nation in the world for which recent figures could be obtained, and that seven foreign countries had infant death rates lower than the United States."

The reason for the increase in maternal mortality in 1920 as compared with maternal mortality in 1915 is not hard to find. In 1920 many expectant mothers died from influenza, and their deaths were charged to pregnancy; in 1915 influenza did not contribute to such mortality.

But probably the most overworked figures that have been used in the support of the Sheppard-Towner propaganda are such as those referred to above, purporting to show an exceedingly high maternal mortality rate in the United States as compared with the maternal mortality rates in other countries. Concerning comparisons of that kind, the Bureau of the Census has this to say:

"As already pointed out, the classification of deaths from puerperal causes differs greatly in different countries. Higher rates in one country than in another, therefore, do not necessarily mean higher mortality from these causes. However, as classification in a given country presumably differs but little from year to year, the rates do presumably serve as useful measures of mortality from these causes within the country itself.

"Comparing the rates of 1923 with those of 1915 for puerperal septicemia, the United States shows the same rate for both years, England and Wales a reduction of 13.3 per cent in its rate, Australia an increase of 30.8 per cent, New Zealand an increase of 137.5 per cent, and Scotland the same rate for both years. For other puerperal causes, the United States shows an increase of 5.4 per cent, England and Wales a decrease of 7.4 per cent, Australia an increase of 17.2 per cent, New Zealand a decrease of 15.4 per cent, and Scotland an increase of 7.1 per cent." Twenty-fourth Annual Report, Bureau of the Census, Mortality Statistics, 1923, published in 1926, page 64.

Just what comfort Sheppard-Towner propagandists can get out of these figures is hard to see.

6. *Even if it could be admitted that infant and maternal mortality rates were as bad as the proponents of the pending legislation assert, and that it is as easily reducible as some of them claim, there is no evidence to show that preventive measures can be applied more effectively by the federal government than by the state.*

So far as is known, not a single advance in methods for preventing infant and maternal mortality has been made by the Children's Bureau since the Sheppard-Towner Act was passed. It has merely adopted methods devised and in use by the several states and cities of the country. Obviously supervision and control of such activities over the entire land area of the United States, approximately 3,000,000 square miles, by a federal bureau in Washington, must entail a heavy overhead expense, or must be supervision and control on paper only.

Approved by the Executive Committee of the California Medical Association, June 19, 1926.

OUR PRESENT CONCEPTION OF ESSENTIAL HYPERTENSION †

By Roy E. Thomas *

ANY condition, the etiology of which is in doubt, is always a live topic. Add to unknown etiology, a steadily increasing incidence, and a mortality almost equal to that of any infectious disease, not excepting tuberculosis, and we have everything necessary to stimulate the keen interest of all students of medicine. Since Sir Clifford Allbutt first described the malady which he then called hyperpiesis, the rank and file of the profession have gradually come to recognize this condition as a clinical entity. Articles appeared from time to time in the medical journals, and as the importance of the subject became increasingly evident numerous theories concerning etiology, reports of experimental work and recommendations for therapy, resulted in confusing, rather than clarifying, the conception of hypertension for the average reader.

It is my intention to discuss briefly: (1) the theories concerning the etiology of this disease which to my mind merit consideration; (2) its pathology, including the relation it bears to arteriosclerosis, heart failure and the condition known as chronic nephritis; (3) clinical features and management, particularly prophylaxis based on our latest conceptions of etiology.

Etiology—It is probable that blood pressure may be raised by (1) increased heart action; (2) increased quantity or viscosity of the blood; and (3) increased resistance in the peripheral blood vessels.

As early as 1862, Bezold [1] showed that stimulation of the accelerator nerve increased blood pressure, not by causing tachycardia, but by exciting the vasomotor center. Numerous experimenters have demonstrated that increased heart rate does not increase blood pressure as long as the regulating mechanism of the vasomotor system is intact. Of greater significance than the heart rate is the increased amplitude of the heart beat. Such an increase might be the result of direct stimulation of the heart muscle by toxins or chemical substances circulating in the blood stream. Increased output of the heart is probably not a factor in causing high blood pressure because of the compensating mechanism just mentioned.

The theory that increased viscosity of the blood causes high blood pressure was advanced by Ewald [2]. In favor of such a view is the fact that in erythremia there is a greatly increased viscosity of the blood with a normal or slightly increased volume output, and in many cases the blood pressure is elevated. Also the pressure lowering action of iodin salts (if such exists) is possibly due to their action in decreasing the viscosity of the blood.

Can increased volume of blood cause high blood pressure? Most physiologists say not and support their stand by animal experimentation.

According to Tigerstedt,[3] enormous quantities of blood have been transfused with slight or very transient increase in blood pressure. The plethora is cared for by transudation into the tissues or more likely by a vasomotor protective or regulating mechanism which, according to Fazzani,[4] must be located in the periphery, since it is effective after section of the spinal cord. So much for increased heart force and changes in the volume or composition of the blood. It is pretty generally accepted that they are at the most very minor and transient factors in the cause of increased blood pressure.

This leaves only increased resistance in the peripheral vessels as the chief etiological factor in the mechanics of hypertension. While students of the problem generally agree that increased peripheral resistance is the cause of high blood pressure there are many opinions as to just what causes this increased resistance; is it spasm, lessened elasticity, or pressure from without the vessel wall as in edema, or increased intra-abdominal pressure? Little can be said in favor of external pressure as a cause of increased peripheral resistance. No more conclusive is the evidence in favor of the mechanical theory, the advocates of which hold that a primary contraction of the kidney is the chief factor in causing peripheral resistance. If merely a local narrowing of the arterial tree could cause high blood pressure we should see it in all cases of Renaud's disease and endarteritis obliterans. Loss of elasticity in the vessel walls as the cause of high blood pressure can be dismissed with a word. The frequency of advanced generalized arteriosclerosis associated with normal or low blood pressure is well known. Kahler [5] believes that the greatest factor in the cause of high blood pressure is a general contraction of the precapillary arterioles, a disorder of the motor control of the blood vessel musculature. *This* is the theory which seems to fit in best with clinical observation and recent experimental work.

If we accept this theory of the mechanics of high blood pressure we have yet to explain the factors back of this loss of vasomotor equilibrium. To account for it many interesting hypotheses have been advanced, the most plausible of which are: (1) reflex—due to some peripheral, visceral or central stimulation, the latter possibly psychic in nature; (2) chemical—due to the presence in the blood of normal products of metabolism like guanadin or glucose in increased amounts as in hyperglycemia or *abnormal* products of metabolism or toxins reaching the circulation from the intestinal tract; (3) endocrine—through hyperactivity of the adrenals or pituitary glands or hypofunction of the gonads; (4) hereditary—either by direct transmission of some constitutional anomaly or special susceptibility to environmental factors.

It seems improbable that any one of these four hypotheses will explain all cases of chronic hypertension. Barker [6] has recently expressed his opinion

† Address as chairman, Section on General Medicine, 1926 Session, California Medical Association, Oakland.

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as follows: "That the causes (of hypertension) be partly in the germ plasm and partly in environmental influences, seems certain. The tendency of essential hypertension to occur in families as well as its incidence among persons of certain types of constitutional make-up (those with vasopathic, neuropathic and endocrinopathic inferiorities) point to a predisposition that is geno-typically determined." As possible environmental factors, he mentions infectious processes, chronic intoxication, dietetic errors and exposure to stress and strain, mental or physical.

Heredity is without doubt the greatest single factor in the etiology of hypertension. Common habits and environment will hardly account for the high rate of incidence in certain families such as the one reported by Rosenbloom [7] in which both father and mother died of cerebral hemorrhage at forty-five and eight of ten children had marked hypertension before the age of fifty. The records of any medical clinic will furnish similar instances. O'Hare [8] has found a family history of vascular disease in 68 per cent of 300 cases of hypertension compared with 37.5 per cent in controls. Barach [9] found a positive history of cardiovascular disease in all but two of forty cases of chronic hypertension observed by him. He considers the factor of heredity the most prominent one in the hypertension group. He also considers acute infections a factor in as much as they bring about endocrine disturbances and neuro-circulatory asthenia. In an unselected series of 100 cases of chronic hypertension observed by the writer 65 per cent had a family history of cardiovascular disease. In an equal number of controls such a history was obtained in only 32 per cent.

In addition to certain physical characteristics (sthenic habitus), which seems to be prevalent in these families in which hypertension is prone to occur, I believe that there is a more or less characteristic mental make-up or disposition. These individuals are intense in everything they do. They worry without showing it. They cannot relax. If they play they do so with such concentration and effort that it really amounts to work.

As has been pointed out by Kylin [10] there are certain resemblances between hypertension and the disease of which bronchial asthma is a manifestation; both are hereditary, both occur in neurotic individuals with abnormally sensitive vegetative nervous systems, and both are characterized by spasms of involuntary muscle fibers—in the arterial wall in one case, and in the bronchial wall in the other.

Pathology—Fishberg [11] has described the arterial changes found in seventy-two cases of chronic hypertension which came to autopsy. Typical lesions occurred in the arterioles. These changes were most frequent and most marked in the kidney and consisted of: (1) hyalinization of afferent arteries beginning close to the junction with the glomerular tuft; (2) hyperplasia of the internal elastic membrane with reduplication and formation of multiple lamellae; (3) reactive proliferation of the neighboring connective tissue resulting in marked narrowing of the lumen which may go on to obliteration. The vessels of the spleen, liver, pancreas and brain are involved to less extent while those of the skin, striped muscle, gastro-intestinal tract and heart apparently escape.

The gross changes which occur late in chronic hypertension are so well known as to require only brief mention. They consist chiefly of more marked renal changes, sclerosis of the larger arteries, cardiac hypertrophy and retinal or cerebral hemorrhages. It is upon these secondary changes that most of the symptoms of hypertension depend.

CLINICAL CONSIDERATION

Hypertension of comparatively short duration and obvious cause such as occurs in acute nephritis, toxemia of pregnancy, hyperthyroid states or as the result of intracranial lesions is not within the scope of this paper. In these conditions the hypertension is merely a symptom having no more significance than fever in infectious diseases. Kahler [12] has attempted an elaborate classification of chronic hypertension based upon pathogenesis, clinical manifestations and response to certain drugs, venesection and lumbar puncture. Inasmuch as many cases fail to conform to this classification it seems unwise to urge its general adoption lest it add to the confusion already existing.

The chief point under discussion at this time seems to be the relation of hypertension to chronic nephritis. Chronic nephritis may be divided into two types; one with edema, the other without edema (Christian.[13]) In the first type high blood pressure often occurs but is frequently absent. The glomeruli are chiefly affected and the disease usually may be traced to some infection. In the second type (without edema) high blood pressure is constant, the lesions in the kidney are chiefly vascular and proliferative, and no constant etiological factor has been demonstrated unless it be a pre-existing hypertension. Occasionally a case of clear cut hypertension is seen which can be followed through the gradual changes characterized by fixation of specific gravity of the urine, retention of sodium chloride and nitrogen until finally cerebral hemorrhage, heart failure or uremia end the picture. Who can deny that all cases of essential hypertension might not follow this course if they were not terminated by cardiac failure or cerebral hemorrhage before renal function became greatly affected?

The relation of hypertension to chronic heart disease is generally recognized and needs little comment. Janeway [14] has said that no large reduction of the mortality from circulatory diseases is likely until the problems of hypertension and rheumatism have been solved. In a series of 250 cases of myocardial insufficiency, he found the largest group (36 per cent) due to hypertension. In England and Scotland on the other hand the first place in the etiology of chronic heart disease is held by rheumatic fever (Cotton [15]). Allan.[16] This seems significant when one considers the difference in temperament and mode of living between the English and American people.

Just how great a part chronic hypertension plays in the etiology of general arteriosclerosis is difficult to determine. Allbutt in his "Diseases of the Arteries including Angina Pectoris," mentions hyperpiesis first among the causes of arterial disease, and it is

safe to say that as our knowledge of the subject becomes more complete, we shall attribute to this cause still greater importance.

The manner in which hypertension causes anatomic changes has led to much speculation. Moschovitz [17] believes that many of them can be accounted for by a mechanical stretching of the tissues with replacement fibrosis followed by hyalinization and calcification. Thickening of the intima, hypertrophy of the media and increase in the elastic fibers he believes to be in a great measure compensatory.

The only constant manifestation of early essential hypertension is the symptom which has given to this disease its name, i. e., persistent high blood pressure unaccounted for by some evident cause such as hyperthyroidism, acute nephritis or toxemia of pregnancy. Of other early symptoms which occur the most common are fatigue, irritability, vertigo, insomnia, dyspnoea upon exertion, palpitation and digestive disturbances. Late symptoms depend upon impaired cardiac, renal or vascular function and are not in any way characteristic of hypertension.

It is not my intention to discuss in detail the management of hypertension. This phase of the subject has been well covered by Du Bray [18] in a paper read before this section in 1923. Dietetic restrictions, modified habits of work and play, sedative drugs, hydrotherapy, glandular extracts, venesection, etc., may all have their places in the treatment of this condition. The problem which confronts physicians today (a problem just as vital if less evident than that of cancer), is the prevention of hypertension. As physicians we could accomplish much by cultivating a closer relationship with the relatives and friends of the patients with whom we come in contact. We would then be in a position to advocate periodical physical examinations, shorter working hours under less tension and more frequent vacations of the right sort for the modern business man. We could preach the dangers of obesity and excessive use of tobacco. It might even be possible to influence the children in families prone to develop hypertension, to choose a life work in which they would be likely to meet a minimum of the stress and strain of life as it is lived in America today.

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THE APPENDICITIS PROBLEM †

By THOMAS O. BURGER *

IT IS the duty of the section chairman to make an opening address before the group over which he presides. What he shall say is up to him. I have chosen to depart from the usual inspirational paper or yearly summary of progress to the section's credit and to sketch some phases of our problems as surgeons with the hope of stirring up some serious thinking. If we do not stop now and then and listen to those of our number who are strong for figures, we are too prone to remember only our successes and to forget our failures.

Willis in a recent paper on surgical mortality has served to confirm in the minds of some of us the fact that the mortality rate in appendicitis is entirely too high. Too frequently do we read in the public press that Mr. So-and-So died following an operation for appendicitis. Of course the newspaper never mentions the fact that Mr. Blank, who had never been vaccinated, died of smallpox. That would put the blame on the victim. The death following appendectomy is "good news stuff" because it is made to appear that if a meddlesome surgeon had kept his hands off the valuable citizen would still be alive. Humanity would benefit by the smallpox notice, the cause of public health be fostered. This is the situation we find ourselves in, quite a disconcerting one too, to say the least. I want to lay this matter of appendicitis and its mortality rate before you, as I have said, for thoughtful consideration.

Why is the mortality rate not decreasing, why is it indeed increasing, as the figures seem to indicate? It is a particularly serious question, for the fatalities are among the younger members of society, people at the beginning or at the height of their economic careers, together with a high proportion of children between the ages of 5 and 15. Some of these deaths can be laid at the feet of relatives and

† Chairman's Address, Section on General Surgery, presented at 1926 Session, California Medical Association, Oakland.

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friends, especially the fond mothers of the children. The layman cannot for the life of him see why every conceivable disturbance below the diaphragm should not be subjected to at least one massive dose of castor oil. "Blow it out" seems to be the slogan. The layman naturally holds off from surgical interference as long as possible. He has in his system the accumulated fears of the past, fortified by the prejudices stimulated by the anti-propaganda of the Sunday newspaper. He needs educating. Who is to educate him?

That question brings us to the next phase of the problem—the general practitioner or family physician. Most patients are first seen by him. A patient with an acute abdominal disturbance may promptly receive a second dose of cathartic. Why do some doctors continue this dangerous practice? Is not the real indication for catharsis diarrhea? Is not nature doing its best to put the bowel at rest? Yet by the injudicious use of cathartics the bowel is too often whipped into breaking down the protective barriers that may be forming. We cannot educate the layman until all doctors utilize the principles of physiology and pathology in treating the sick. Then we have the occasional doctor who forever is watchfully waiting. He has heard something about an Ochsner treatment that has tided patients over the acute stage of appendicitis. We all have heard of the appendicitis that turned out to be a pneumonia. That gets publicity and gives much chagrin. Which is no excuse for such wholesale delay. But to go back to this watchful waiting. Just what does the general physician do during this period? Acute appendicitis, or any acute abdominal disturbance where decision is not definite, should be given careful study with an open mind. Undoubtedly physicians should study patients with acute abdominal symptoms more thoroughly and with less preconceived ideas of what we expect to find or what treatment should be instituted than is required in any other acute medical problem.

The variations in the locations of the appendix as to surroundings makes a difference in the symptoms and signs, e. g., a retrocecal appendix or one well protected by a thick omentum may not show rigidity or local point tenderness, and may not induce so much pain. This often prevents the doctor who is not thinking in terms of "appendicitis and its disastrous ending by delay" from making an early diagnosis. Here is where a blood count may be of inestimable value.

Again we may have an infection of the appendix of a patient who may get well even if purgatives are given heroically, and some even recover by abdominal massage, proving that individualization is needed and not rule of thumb methods. The rapidly fulminating appendicitis, gangrenous in the first few hours, followed quickly by edema, local anesthesia and death, is another pitfall for the unsuspecting physician. This type (and appendicitis where first warning is perforation of its walls, and the fecalith and infection contaminates the peritoneum) costs many lives, not through any fault of the physician, because the danger may be recognized and a physician called too late.

When we recall the excessive, unnecessary loss of lives, mostly during their productive years, because of appendicitis, is it not pardonable to restate some of the facts that are known but not always heeded?

In an acute appendicitis, or an abdomen where such is suspected, "watchful waiting" may be indifference to danger, or it may be inability to overcome the patient's reluctance, or the desire of friends to "wait and see" if operation is the only possible chance. There may come a time when professional and public sentiment will make such delay so unpopular that the experience will be hard to live down. All possible means should be used in order to get essential data for diagnosis and treatment, even if consultation must be called to reinforce the appeal and share in the responsibility of judgment.

Patients who are ill two, three, five or more days often are the ones who test the judgment of physician and the surgical consultant. Such are the patients where the Ochsner treatment undoubtedly is often best. But an open mind is essential. Do not, as I have heard some say, "operate upon all patients at any time as soon as the diagnosis is made." A preconceived opinion converted into diagnosis by dogmatism is a disaster to the unfortunate with acute appendicitis.

Another factor in the high mortality rate from appendicitis is the operating by physicians lacking in necessary skill and surgical judgment. I admit I hold a brief for the surgeon who limits his work to surgery; he who gives his life to it and through experience has gained sound judgment. We know that at the most unexpected times a patient may present a most difficult situation requiring prompt surgical judgment and action. The old well-expressed definition of a surgeon as "one who, when in difficulty, is able to get out successfully" implies such experience and judgment. I hold that appendicitis is a surgical condition for the surgeon to handle. You have an infected tube of infinite, yet definite, potentialities in an extremely vulnerable cavity, a picture that often presents trying diagnostic and therapeutic problems.

Having found fault with the family and the family physician, I am going to take a shot at the surgeon himself. As the Quaker said to the burglar on the fence, "I'm going to shoot where thee sits. If thee does not want to get hit, thee had better get down." The surgeon has his faults too, and some of them are not pleasant to think about. How much of the dislike and distrust of the layman have we truly merited? How much of the hesitancy of the general practitioner in calling on us is justified? Quite a bit, I regret to say. There are sometimes patients who may be safely tided over a crisis until the so-called "interval appendectomy" may be done. But we are sometimes afraid that the patient will slip away from our grasp. However, what I desire to stress even more than the "furor operativus" is our relationship to the man who has been the family adviser and attendant. He, too often, is humiliated in the presence of the frantic family. He may merit censure, but never in the sickroom or in public. I admit that it often takes a lot of tact and quick-witted action to save the hide of some good family

doctor who has done his best and yet blundered. But criticism does not benefit you, the other doctor, or the family. Does the surgeon overshadow his fellow-practitioner professionally? Yes, often, consciously or unconsciously. As the patient is recovering with gratitude at its height, that is the time for the surgeon to get in his education of the family and friends regarding the hard-working and conscientious family physician, with his unceasing care, his diagnostic ability and his promptness in recognizing the value of outside assistance. You do that and you have not only restored a faith in the medical profession that is probably waning, but you have made a friend of the physician, a friend who in the future will feel less hesitative in calling in a surgeon. The consultant and operator should see to it that the referring doctor is not overshadowed financially, as is too often the case. He has justly earned a fee for services rendered, and the family should so understand it. He has made the diagnosis, prepared the family and the patient for eventualities. He has succeeded in bringing about the proper treatment and watched the patient through convalescence. If the general practitioner does not get a square deal financially, how can you expect him not to be influenced unwittingly or otherwise in what he does?

We must admit also still another phase of the problem that is no doubt not a universal one, but one varying in its importance in different localities. I refer to the standardized staff hospital. Our efforts at raising the standards of the profession have brought additional difficulties. Acute appendicitis is first seen in the majority of cases by the family physician. Large numbers of these men, as good as the average, are not on the staffs of many of these hospitals for many reasons. They know that once a hospital is considered, the patient will be completely lost to the staff surgeon and they will be left outside in the proverbial cold, again overshadowed professionally and financially. Lord Dawson while here last winter commented on just this same situation that they are facing in England. He offers a solution in the suggestion that three types of hospitals be organized and recognized. The first is a strictly closed staff hospital; the second a closed staff institution, permitting other physicians to come in and retain a slight hold on the patients; and the third would permit the regular practitioner to bring in his patients and treat them under a sort of supervision by the staff. I cannot agree with this classification. Nevertheless we must admit that the attitude of the hospital still further complicates our problem.

Our appendicitis problem then is this: There is an increase in the mortality rate due (1) to the attitude of the layman; (2) the problem of treatment by the general practitioner; and (3) the surgeon himself, with special reference to his relationship to the referring physician.

The maintenance of individual practice in the person of the general practitioner or family physician is of the utmost importance for the survival and continuation of the family home as the foundation of the nation.—Wendell C. Phillips, M. D., Journal A. M. A.

THE IMPORTANCE OF BUCK'S AND COLLES' FASCIAE IN URINARY EXTRAVASATION †

By MILEY B. WESSON *

INTRODUCTION

COLLES' fascia and Buck's fascia are of interest to all surgeons because of the part they play in controlling the directions and extent of periurethral inflammation, abscess or urinary extravasation incident to rupture of the urethra. Such conditions are among the most complicated that come to the surgeon's attention, and the treatment calls for the rarest skill and judgment, as indicated by the all too frequent fatalities that follow unscientific therapy. Clinical reports in the literature depict a variety of methods of treating urinary extravasation. Emphasis is laid upon the bad prognosis and the necessity in most cases of radical and mutilating surgery. However, details as to the paths and the rapidity of the extravasation are practically always lacking.

Four cases of limited extravasation are reported: a ruptured varicocele with a hematocele that was confined within Colles' fascia, and three localized extravasations that conformed to Buck's descriptions as "circumscribed, hard, prominent swelling of the size of a Madeira nut in the anterior part of the scrotum, covering and closely embracing the urethra and also extending on either side around the root of the penis in the form of an indurated flattened band."

The term "fascia" is a confusing one. Technically, it is defined as a sheath or band of tissue which invests and connects the muscles. Practically all fasciae are merely condensations of the fibrous connec-

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tive tissue everywhere present and which is split in various ways by different dissectors. Embryologically, fascia consists of a condensation of mesenchymal tissue which occurs subsequent to the formation of a structure. A lack of liaison between the dissecting room, where fascia is demonstrated on a hardened body as a single dense sheath, and the surgical amphitheater where it appears as thin layers bound together with connective tissue partitions, is responsible for most of our inaccurate anatomical knowledge and bizarre perineal surgery. Such terms as Buck's fascia, Denonvilliers' fascia, and internal sphincter of the bladder indicate to the surgeon clinical entities, but to the anatomist they are not definite structures. Colles' fascia has been more or less indefinitely depicted in the textbooks of descriptive anatomy, but unfortunately no two descriptions are alike. Buck's fascia has been ignored by the anatomical textbooks and is referred to only in textbooks of urology.

So far as I can find, there is no reference (until recently) in the literature to the original article of Buck, although it was published in Vol. 1 of the Journal of the American Medical Association. I unearthed it by the systematic investigation of all articles written by "Buck" listed in the Index Medicus; the Surgeon-General's library was freely consulted and it took months to obtain and look over the publications, as the search extended back year by year until a span of seventy-eight years was covered.

Gurdon Buck, Jr., in 1848 treated a patient at New York Hospital for a localized extravasation of urine, which occurred at the root of the penis. The rupture of the urethra had taken place within the sheath of the corpus cavernosum, and the inflammatory swelling consequent to the extravasation of urine was confined to these narrow limits. As a result he reported the discovery of a distinct membranous sheath investing the penis and forming a continuation of the suspensory ligament above and the perineal fascia below, and laterally to form one continuous membrane with the sheath enclosing the corpus cavernosum in its cavity, and embracing the corpus spongiosum between two layers, one of which passes above and the other below.

Abraham Colles, an Irish surgeon, in 1811 noticed that following a rupture of the posterior urethra the effusion of urine formed a tumor in the perineum that did not suppurate there because of the unyielding nature of the fascia and that diffusion laterally toward the thighs was prevented by the close attachment of this fascia to the rami of the pubes and ischium, hence it passed into the loose tissue of the scrotum and there suppurated or passed up over the pubes.

Three types of urinary extravasation are commonly encountered: (1) between the layers of Buck's fascia; (2) within the superficial perineal interspace; and (3) distal to the deep layer of the urogenital diaphragm.

If the rupture occurs anterior to the urogenital diaphragm, the penile fasciae confine it and produce a circumscribed swelling. The septum of Buck's fascia usually protects the corpora cavernosa from involvement, but if the opening is through the dorsum of the corpus spongiosum the tunica propria of the corpora cavernosa protect these bodies from invasion.

The common pathway, however, is ventral and the extravasation is confined temporarily within the superficial perineal interspace, but Colles' fascia with its dense partitions interposes an effective barrier and prevents the spread posteriorly to the ischiorectal fossa and laterally to the thighs. As a result, the tumefaction tends to pass from the perineum down to the scrotum and then up over the pubes. In early stages the extravasation is unilateral; later both sides of the scrotum, as well as the penis down to the coronary sulcus, are involved and the fluid may even pass up beneath Scarpa's fascia on the abdomen as far as the axilla.

If the rupture occurs distal to the urogenital diaphragm, the extravasation is held forward by Denonvilliers' fascia. By dissecting up the peritoneum from the bladder the urine passes into the space of Retzius, and may extend posteriorly to the diaphragm and eventually even pass through the inguinal rings and appear on the abdomen.

Urinary extravasation occurs when there is an actual break in the mucous membrane. Although it is commonly considered as a complication occurring after rupture of the urethra by external violence, or periurethral abscess with stricture, it is not unusual to find it following the unsuccessful passage of a sound, a Young's punch, or a velvet-eye catheter on a stylet. Stylets should be used only with alpha-eye catheters, since the point tends to slip through the eye of the ordinary catheter and penetrates the space of Retzius, the weakest portion of the urethra being the roof immediately behind the triangular ligament. When force is used in passing a sound, a slight tear is often made in the wall of the urethra. This usually heals spontaneously, but if a solution of potassium permanganate is used afterward as an irrigation, there is a slough and extravasation.

Localized extravasation confined within Buck's fascia, generally secondary to an abscess of a gland of Littre, should be drained by means of an endoscopic incision made with a cautery knife. When such an intraurethral incision is made, the irrigating solution of choice is mercurochrome. Extravasation will not spread if there is drainage, and necrosis can be prevented if sufficient 5 per cent mercurochrome is kept in contact with the tissues.

Baby Jones, Willie Jones, Bill Jones, and, eventually, William Q. Jones the dignified senator from Oopla, in the eyes of the census enumerator—mathematically—is, and has been throughout his days, a single individual entity, one, and so he will continue until he is gathered to his fathers, but, from a physician's standpoint, he has never had a stable oneness, but has varied with the days, the seasons, the years; each slip from right living, each stumble along the way of life, each more or less serious illness left its imprint, and made its change; so, physically, he has been as the shifting sand, and William Q. is far other than the original wee Jones.—Ohio Health News.

The average car costs the average car owner more than the income of the average farmer, yet the average farmer owns an average car. Or are liars figuring?—Weston (Oregon) Leader.

DERANGEMENT OF THE ANKLE-JOINT, FOLLOWING FRACTURES OF THE LOWER END OF THE TIBIA AND FIBULA

By LIONEL D. PRINCE *

The great importance of accurate reduction in fractures involving the ankle-joint, particularly in reference to the complete restoration of the proper weight-bearing alignment, is emphasized. To permit union to take place with faulty weight-bearing alignment is to subject the patient to an additional crippling influence which may become a marked and painful permanent disability. Careful after-treatment is essential to a good functional result. In patients with malunion and faulty weight-bearing alignment, very satisfactory improvement, and often total restoration of function, may be obtained by operative correction of alignment.

DISCUSSION *by E. W. Cleary, San Francisco; H. D. Barnard, Los Angeles.*

THERE is probably no type of fracture which, either through gross ignorance or real carelessness, is so frequently mishandled and improperly treated as a fracture of the lower end of the tibia and fibula. The surgeon is only too frequently satisfied with an incomplete reduction in which the normal mortise-like relation of the lower end of the tibia and fibula to the astragalus and os calcis is not kept in mind, and union of the fractures is permitted to take place without regard for the proper restoration of weight-bearing alignment. As a result, the patient is doomed to have throughout life a permanent disability which may prove to be a serious source of incapacitation and discomfort. The problem is of the greatest importance in industrial surgery, particularly from the point of view of rehabilitation and economics.

Fractures of the lower end of the tibia and fibula, involving the ankle-joint, are extremely common and practically always produced by indirect violence, the force being applied in such a manner as to cause abnormal bending or twisting of the foot. This group of fractures, which are often erroneously designated as Pott's fractures, includes several varieties, the individual type depending almost wholly on the manner in which the traumatic force or strain is applied.

Before discussing the mechanics of reduction in such fractures I will review briefly the essential anatomy of the ankle-joint. The relation between the lower end of the tibia and fibula and the astragalus and os calcis must be constantly kept in mind.

The ankle-joint is essentially made up of the lower ends of the tibia and fibula and the upper portion of the astragalus, the latter being held mortise-like between the internal and external malleoli. The roof and mesial border of the mortise is formed by the tibia, while the lateral border is formed by the fibula, which does not functionate in the transmission of weight-bearing. The ankle-joint proper consists of two articulations—the tibio-fibular junction and the articulation between the lower ends of the tibia and fibula and the astragalus. The tibio-fibular junction is not a true articulation, but is rather a ligamentous union. The inferior tibio-fibular ligaments, the interosseous membrane and ligaments, and the transverse ligament are largely responsible for the strength and stability of this articulation. The articular facet of the astragalus, which is distinctly wider anteriorly, fits snugly in the mortise-like space between the two malleoli, and is firmly held there by thick and firm ligaments. The joint capsule, extending from its attachment to the tibia and the under surface of the malleoli to the astragalus, is strongly reinforced by the deltoid or internal lateral ligament and the external lateral ligament, whose origins are on the internal and external malleoli, respectively. Motion in the ankle-joint is almost completely in the anteroposterior plane—that is, dorsi and plantar flexion. All lateral mobility is prevented by the malleoli and lateral ligaments. Lateral movements of the foot, such as abduction or eversion and adduction or inversion, have their origin in the sub-astragalus joint and bear no relation to the ankle-joint proper. The superior surface of the astragalus and the articulating surface of the tibia are parallel, and in a frontal view lie perpendicular to the axis of the leg. The weight-bearing alignment through the tibia passes approximately through the center of the body of the astragalus.

Fractures of the lower end of the tibia and fibula, involving the ankle-joint, according to Wilson and Cochrane, may be classified in respect to the mechanics of production. The fractures are essentially due to the applied strain to the lower ends of the tibia and fibula, the "effect being produced by a combination of leverage action from bony contact and arrachement from ligamentous pull."

According to Ashhurst, the torsion fracture of the lower end of the fibula, resulting from external rotation of the foot on the leg or rotation inward of the leg, with the foot fixed, is the most common of ankle fractures. The astragalus pressing against the external malleolus as it turns in the mortise results in a fracture running obliquely upward. It is possible for such a force to continue, and where this occurs the internal malleolus is pulled off, as the result of tension on the internal lateral ligament. A continued additional force may produce a fracture through the posterior aspect of the lower end of the tibia. Occasionally, such a force may separate the lower ends of the tibia and fibula, and as the result the fibula may be fractured through its neck at the upper end.

The well-known Pott's fracture is produced by forcible eversion or abduction of the foot on the leg. As the foot is abducted, the strain falls on the internal lateral ligament and the inferior tibio-fibular ligament. The internal lateral ligament may rupture or the internal malleolus, to which it is attached, may be fractured. The astragalus, pressing outward on the external malleolus under a continued force, causes its fracture or a fracture of the

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fibula two or three inches above. As the result of a rupture to the tibio-fibular ligament, the ankle mortise is widened, and there may be an associated posterior dislocation of the foot, with a fracture of the posterior margin of the tibia. The Pott's fracture, therefore, consists essentially of a fracture of the tip of the internal malleolus with a rupture of the internal lateral ligament, a separation of the interior tibio-fibular articulation, and an oblique fracture of the fibula two or three inches above the malleolus. There may be some backward displacement of the astragalus, with a fracture of the posterior articular border of the tibia.

As a result of a forcible and violent turning inward of the foot, the so-called inverted Pott's fracture may occur. The strain is exerted in an opposite manner to an abduction fracture, and the resulting fractures are typical. The astragalus presses against the external lateral ligament, causing its rupture. Should the violence be arrested at this moment, the condition commonly known as sprained ankle results, or if the tip of the malleolus is fractured a sprain fracture occurs. A continuation of such a force causes a tilting of the astragalus, which in turn presses against the internal malleolus, causing its fracture, or an adjoining vertical splitting of the tibia.

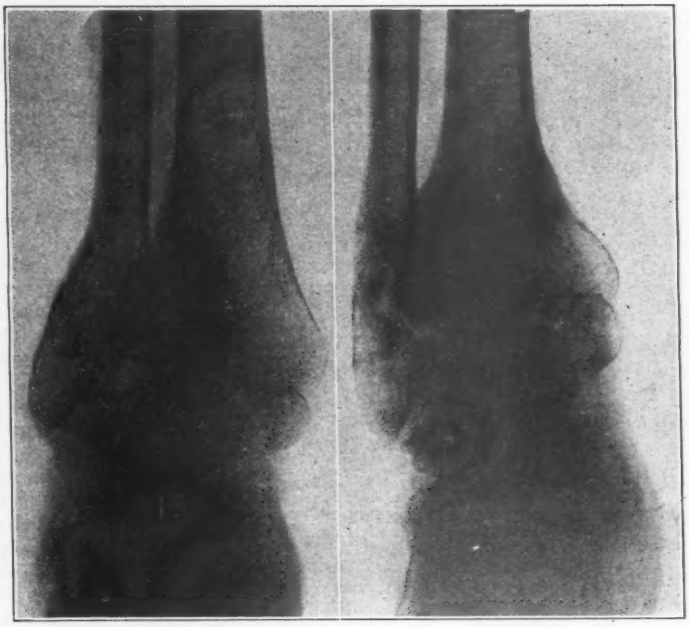

Figure 1 (A) Figure 1 (B)

Figure 1. (A) Pott's fracture in which the fragments have united with outward and posterior displacement of the astragalus. (Case I.)
(B) Correction of alignment following double osteotomies of the tibia and fibula.

Cotton has described a type of fracture, frequently designated by his name, produced as the result of the violent wrench of the foot upward and backward. Such an accident may occur by the catching of the heel of the shoe on the stairs, or by tripping over an obstacle. The foot is usually displaced backward, and as the result the astragalus is thrust violently against the post-articular margin of the tibia, a fracture of the tibia occurring, the triangular-shaped fragment of bone being displaced backward with the astragalus and foot. This fracture may be associated with other fractures of the ankle.

The diagnosis of fracture of the ankle-joint is ordinarily easy, and usually a careful history, with the presence of deformity, is sufficient. Frequently, swelling and pain prevent a proper examination and the exact classification of the type or extent of fracture. Roentgen examination is most valuable, and should be done in all injuries about the ankle-joint.

The proper reduction and treatment depends essentially upon our knowledge of the type and extent of the fractures and the displacement. The x-ray is invaluable for this information. A good end-result in fractures involving the ankle-joint can be obtained only by proper treatment and management, and improperly reduced fractures invariably result in the production of long periods of disability and frequently permanent crippling. Complete anatomical replacement of the fragments, with careful after-treatment, is essential to good function.

Reduction in the majority of fractures through the ankle-joints may be obtained by closed manipulation. Open reduction is rarely indicated. As with all fractures, the sooner after the injury the reduction is attempted, the greater are the chances for a successful replacement. Swelling soon occurs, occasionally associated with blebs, and when a considerable swelling is present it is often expedient to delay reduction. In such instances the leg should be placed temporarily on a pillow, with side splints, and maintained in an elevated position.

Manipulative reduction in these fractures is accomplished by reversing the steps by which the displacement was produced. Complete relaxation facilitates reduction and complete anesthesia should always be administered. If we keep in mind the mechanics of production of the various types of fractures, the mechanics of reduction are relatively easily applied in the treatment of recent fractures involving the ankle-joint. Before attempting any manipulative reduction, I have found it of great advantage to study carefully the landmarks of displacement, correlating the clinical and x-ray findings to this end. Often the disappearance of these landmarks gives us the best immediate evidence that reduction has been accomplished. A plaster fixation following reduction is the best and most reliable splinting; the plaster should be applied carefully, evenly and not too tightly, the foot being held in the position of full correction. The cast may extend to the knee or above the flexed knee, depending on the method of choice of the surgeon. Strong inversion of the foot is essential to the maintenance of

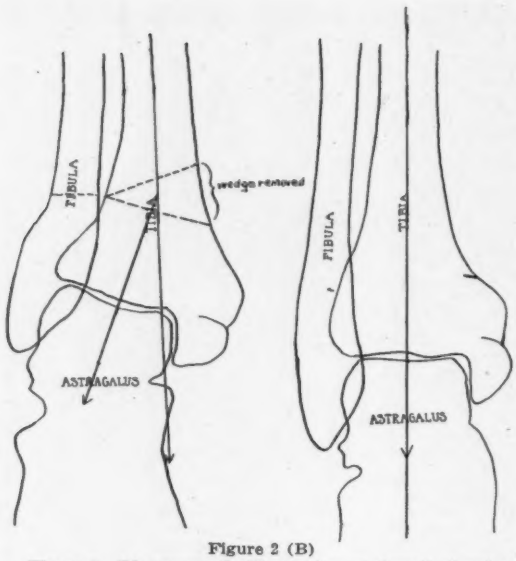

Figure 2 (B)

Figure 2. Diagrammatic illustration of Case I, showing the type of osteotomies performed and resultant correction.

reduction in eversion fractures of the Pott's type. It is important to remember that the inversion must be in the ankle-joint and not in the fracture line, as infrequently the everted type of fracture is converted into an inverted type, owing to lack of observance of this point. Radiographs in both antero-posterior and lateral positions always should be taken following reduction, and, in the event that reduction is not satisfactory, a second effort should be made as soon as possible. The after-treatment consists essentially in the institution of physiotherapy in the third or fourth week, the cast being split and made removable for this purpose. Weight-bearing should not be permitted until six or eight weeks, depending on the progress of healing. The patient should then wear a shoe with the heel and sole raised one-quarter inch on the inner side. It is my practice, where there is a tendency toward flat-foot, to provide a properly fitting arch support.

If the general principles in regard to the treatment of ankle-joint fractures are kept in mind, satisfactory results will be obtained in the majority of patients. Indifference of the surgeon to the necessity for absolute reduction is dangerous. Failure to keep in mind the paramount importance of the restoration of normal weight-bearing alignment may be productive of lamentable results in permitting union to take place with the fractures in malposition. When good reduction has been obtained too early weight-bearing, without proper precautionary support before the soft callus is sufficiently resistant, may permit a partial recurrence of the original deformity. Even the moderate displacements of partially corrected deformities may cause irregularity in joint surfaces, and consequently uneven bearing and, in certain instances, the so-called traumatic arthritis, a most annoying and disabling complication.

Unquestionably, the two great factors largely responsible for disabilities in fractures in this region are the deviation of the foot from the line of weight-bearing and the loss of motion in the ankle-joint. The former, through proper care, can usually be prevented, the latter by the same observance can be reduced to a minimum as a factor in the production of disability through proper reduction, early physiotherapy and the prevention of partial relapse to deformity.

Loss of motion, even where a good reduction has been obtained, is not infrequently an important factor in the establishment of a permanent disability. Loss of antero-posterior motion may be due to minor joint changes or to shortening of the heel cord, not infrequently produced by fixation of the foot in equinus. Except in those patients where such a position is not compatible with the maintenance of reduction, the fact should be immobilized and dorsi flexed at right angles with the axis of the leg. A short heel cord tends to produce a flat-foot deformity with associated disability. Diminished or painful lateral motion is a frequent source of lameness, and painful disability is often accentuated by walking on uneven ground. Early intelligently applied and continued physiotherapy will do much to eliminate this factor in the disability.

Unquestionably, the most severe types of disability following fractures involved in the ankle-joint are seen in those patients where union has been permitted to take place without regard for proper restoration of weight-bearing alignment. Malunion in a Pott's fracture is a common cause of severe disability. The foot is displaced to the outer side of the weight-bearing alignment and there results the deformity, pain, and limp characteristic of flat-foot. The displacement, however, is not due to abduction of the foot as in static flat-foot, but is due to actual displacement of the whole foot at the site of fractures (Figures 1 and 3). For this reason ordinary conservative treatment is usually unsuccessful.

Inward displacement of the foot, with reference to the weight-bearing alignment resulting from malunion, is likewise the source of persistent painful disability (Figure 5). The patient tends to walk on the outer side of the foot, developing fatigue, pain, and awkwardness of gait. Severe cases cause marked crippling. Other factors in the production of disability in badly treated fractures are widening of the mortise (Figure 4), backward or forward displacement of the foot, and weakening or relaxation of the ligaments. Any of these conditions existing alone or in combination may cause pain, loss of motion, or weakness in the ankle-joint.

The outlook for restoration of function where malunion has been permitted to occur is by no means hopeless, and operative intervention often gives very encouraging and satisfactory results. Deformities of the ankle-joint, following Pott's and the inverted type of fractures, are particularly amenable to operative treatment. The operation which I have performed, with excellent results, consists essentially in double osteotomies of the tibia and fibula, just above the site of fracture. In those patients where union is not as yet complete, the fracture sites may be osteotomized, the fragments

thoroughly mobilized, and the ankle-joint treated as in cases of a fresh fracture. In the presence of solid union, osteotomies through the former fracture sites should not be attempted. A compensatory osteotomy at a point higher up results in excellent correction and does not, by adding fresh trauma to the ankle-joint, jeopardize the existing motion. The technique is quite simple, and is not associated with any particular difficulties.

In Pott's fracture an osteotomy of the fibula is performed and the external malleolus thoroughly mobilized. A cuneiform or wedge-shaped osteotomy of the tibia is then performed through an open incision, sufficient bone being removed to permit full correction of the alignment. Uncertainty about the amount of bone to be removed to obtain correction may be determined accurately prior to the operation in the following manner: Make a tracing of the x-ray of the deformed ankle and cut the tracing out as one cuts out a silhouette. A wedge may then be cut from the outlined tibia, sufficient paper being cut away to permit correction of the weight-bearing alignment when the edges of the wedge are approximated (Figure 2). The foot following the operation is immobilized, well inverted in plaster of paris. In the inverted type of fracture no bone is chiselled from the tibia, but following the osteotomy a small section is removed from the fibula, the amount depending on the degree of correction necessary. One may place in the gap in the tibia produced by the correction small pieces of bone removed from the tibial shaft. The correction is maintained by fixation in plaster.

The post-operative treatment is essentially the same as that extended to fresh fractures, with the exception that extra precautions against the recurrence of deformities, especially in the inverted type, are indicated.

Figure 3 (A) Figure 3 (B)

Figure 3. (A) Pott's fracture with outward displacement of the astragalus and external malleolus. (Case II.)

(B) Result following osteotomies of the fibula and internal malleolus and correction of weight-bearing alignment.

CASE REPORTS

CASE I. Mr. S., age 30, injured February 5, 1922, when he was thrown from a car, falling a distance of twenty feet to an embankment. He sustained comminuted fractures of the lower end of the tibia and fibula, and the foot was immobilized in plaster for six weeks. The patient was first seen by me in June, 1922, at which time he complained of marked pain in the foot and was unable to walk any considerable distance, and unable to work.

The patient walked with a moderate limp. There was present marked valgus deformity of the right ankle-joint, with considerable widening. Movements of the ankle-joint were about 50 per cent, limited in all directions. As the patient stood, the axis of the weight-bearing alignment extended to a point internal to the foot. X-rays showed an old Pott's fracture, which had united with marked outward displacement of the astragalus and corresponding displacements of both malleoli (Figure 1A).

An attempt was made to relieve the symptoms by providing a corrected shoe and a foot-plate for the patient. While considerable improvement was secured, a corrective osteotomy of the fibula and a wedge-shaped osteotomy of the tibia was done November 14. In order to obtain sufficient correction of the alignment, it was necessary to remove a tibial wedge, measuring one inch in diameter at the base (Figure 2). Following the operation, the foot was immobilized by plaster in the corrected position. A walking-cast was applied about six weeks later. Following the removal of this cast, physiotherapy was instituted. The patient was discharged in March as being fully able to return to his employment. Examination at the time of his discharge showed full normal range of motion in the ankle-joint, excellent alignment, and no painful disability (Figure 2 (B)).

CASE II. Mr. L., age 58, a laborer, on March 12, 1924, was caught in a rockslide, sustaining a left Pott's fracture. The fracture was reduced, and the leg and foot immobilized in plaster for five weeks. I saw the patient in May, 1924. He complained of marked pain in the ankle-joint, was unable to put any weight on the foot, and walked with canes.

The ankle-joint was decidedly widened. The external malleolus was unusually prominent, and the foot was displaced outwardly to the normal weight-bearing alignment. Motion in the ankle-joint was markedly restricted in all directions, and was associated with considerable pain. Inversion was entirely absent. X-rays showed an old Pott's fracture which had united with outward displacement of the astragalus and corresponding displacements of both malleoli (Figure 3 (A)).

On May 28, 1924, double osteotomies at the site of both malleoli fractures were performed. Following correction, the foot was immobilized in plaster in the inverted position. Subsequently, a walking-plaster was applied. Following its removal, physiotherapy was instituted and a foot-plate provided. The patient was discharged in November, with a good restoration of weight-bearing alignment, and the ankle-joint exhibited only slight restriction to motion. The patient complained of slight pain in the ankle-joint, especially noticeable in cold or damp weather. Owing to the age of the patient, it is probable that he had a mild traumatic arthritis of the ankle-joint. (See Figure 3 (B)).

CASE III. Mr. L. G. B., age 32, on February 17, 1924, was struck by a bull, sustaining a fracture of the right fibula in the lower third, with partial dislocation of the

Figure 4 (A) Figure 4 (B)

Figure 4. (A) Marked outward and backward displacement of the astragalus following fracture of the fibula. (Case III.)

(B) Restoration of alignment following osteotomy of the fibula.

astragalus. He received medical treatment, and in a few weeks was discharged as cured by his attending surgeon. He was seen by me in April, 1924, when he complained of marked pain and weakness in the right ankle-joint and foot, which he stated were increasing, and he was unable to walk without the use of crutches.

There was marked widening of the ankle-joint and extreme outward displacement of the foot. Antero-posterior motion of the foot was fairly normal, but extremely painful. It was impossible to invert the foot or to correct to any degree the marked valgus deformity. X-rays showed a healed fracture of the fibula in the lower third, and marked outward displacement of the foot. There was a gap of nearly three-quarters of an inch between the inner border of the astragalus and the articulating surface of the internal malleolus. (Figure 4 (A)).

On April 8, an osteotomy of the fibula was done. The foot was manipulated with a Thomas wrench, and following reduction was immobilized in plaster in a well-inverted position. In about five weeks a walking-plaster was applied and subsequently physiotherapy instituted. The patient was discharged on July 19 with an ankle-joint which showed no evidence of any deformity, and motion was free and normal. The pain, likewise, was completely absent, and the patient returned to his regular employment. (See Figure 4 (B)).

Case IV. L. J. H., age 47, a laborer, sustained a right-sided inverted Pott's fracture on July 29, 1922, while working on a rock crusher. The fracture was reduced and immobilized for seven weeks. Subsequently, owing to the incomplete reduction, a second manipulation was done and a cast applied. The patient consulted me in February, 1923, six months after the injury, because of constant and increasing pain in the ankle-joint, inability to walk much, even with the aid of a cane.

There was definite inward displacement of the foot to the inner side of the weight-bearing alignment of the leg, there was moderate limitation to dorsi and plantar flexion, but eversion and inversion were practically absent. X-rays showed an old united, inverted Pott's fracture with inward displacement and tilting of the astragalus (Figure 5 (A)).

In February, 1923, an osteotomy of the fibula was done, and the alignment of the foot corrected and a plaster splint applied. Immobilization was continued for about seven weeks, and subsequently physiotherapy instituted. In June all treatment was discontinued, and the patient attempted to return to his employment. At that time he exhibited good motion in the ankle-joint, with the exception of slight limitation to inversion and eversion, and the weight-bearing alignment was satisfactory. In August he returned to the office, stating that he still had some pain. Examination showed some tenderness over the internal malleolus. The pain was especially noticeable in cold or damp weather, and was considered that very probably he had a moderate arthritis of the ankle-joint. A foot-plate gave him considerable relief, and he subse-

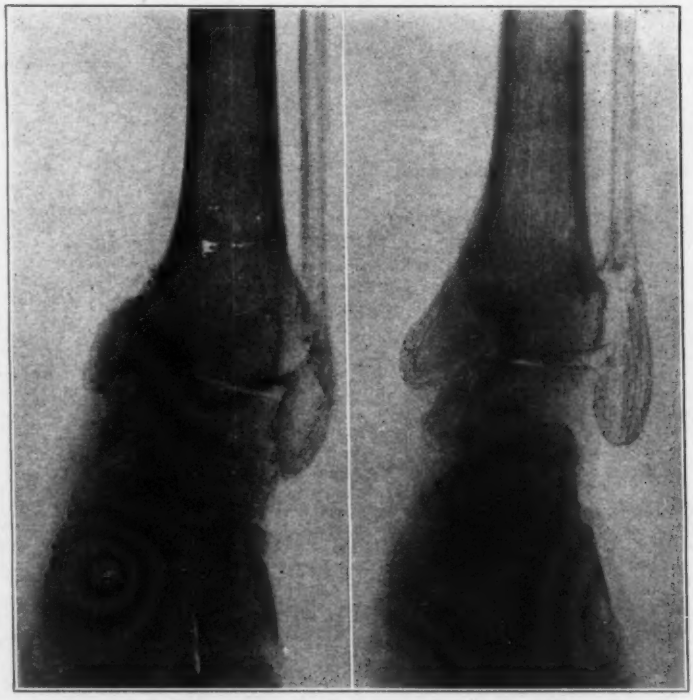

Figure 5 (A) Figure 5 (B)

Figure 5. (A) Inverted Pott's fracture with inward and forward dislocation of the astragalus. (Case IV.)

(B) Correction of weight-bearing alignment following osteotomy of the fibula.

quently returned to his employment. When last heard from he complained of some pain in the ankle-joint during cold or damp weather, or following excessive walking. (See Figure 5 (B)).

DISCUSSION

E, W. CLEARY, M. D. (177 Post Street, San Francisco) — I have read with interest and profit Doctor Prince's painstaking analysis of this very important group of fractures. So completey has he covered the subject that not much is left to be said.

Fractures involving the major weight-bearing joints carry always the possibility of such serious crippling that the surgeon confronted with such an injury should be at once upon his mettle.

In fractures about the ankle, particularly the distortion produced at the moment of injury, rarely persists until the patient reaches the surgeon. Either through the strong natural tendency of the tissues to return to a normal relation or to the immediate interference of someone who happens to be on the ground, a partial reduction occurs before the surgeon appears on the scene. For this reason, it sometimes happens that the extent of the lesion is underestimated and the surgeon fails to visualize the degree, as well as the direction of primary distortion. He may, on this account, fail in his manipulations to secure reduction, because he does not "unlock" tissues by the important maneuver of reproducing the primary distortion and beginning the reduction from that point.

Many of these so-called fractures are really combinations of fractures and dislocations, and the attendant ligamentous lesions are a very significant factor. I recall the startling degree of ligamentous tearing, which I found present in the first extensively compounded fracture involving the ankle-joint which fell into my hands. Seeing the torn ligaments is very impressive, but it is well to bear in mind that the tearing may be just as extensive, though the elastic skin remains intact. Good bony reposition may be obtained, by manipulation, a considerable time after injury, even after primary swelling has subsided, but a good restoration of badly torn ligaments is usually not possible unless the reduction is completed very early.

H. D. BARNARD, M. D. (2417 South Hope Street, Los Angeles)—In a number of fractures about the ankle I have encountered cases which presented marked disturbance of the normal relationship of the leg alignment prior to the fracture, the mortise of the ankle being rotated outward up to as much as 40 degrees or more from its normal relation to the knee-joint. This resulted, as was pointed out several years ago by Hoke and others, in the ankle-joint operating in one plane and the knee-joint in another, despite the fact that they are joints superimposed upon one another, and to obtain the greatest possible mechanical efficiency should operate in the same plane.

I have several times wondered, in inspecting these cases as they present themselves as a final after-result, as to whether one would be justified in attempting to reduce any of these torsion deformities of the limb at the time of reduction of the fracture. I mention this consideration only to emphasize the opinion expressed by Prince that the most accurate anatomical reposition of the relationship prior to fracture is to be most desired.

The surgeon is not justified in being influenced by the presence of rotation deformities prior to fracture from this one main factor, proper attention to which is so essential to success.

A small percentage of these fractures yield an unsatisfactory final result, apparently, when all of the essential factors as enumerated by Prince have been carefully carried out. The pathology in these unsatisfactory cases is probably similar to the cases of prolonged painful feet, following tarsal fractures involving the subastragaloid joint. Disturbances in the normal contour of the joint surfaces, involving the sliding mechanisms, probably remain uncorrected to some extent even in the hands of the most expert. The persistence of pain and disturbance in the tarsal fractures, involving the subastragaloid joint over such a long period of time, has been my reason for adopting as a routine the arthrodesing operation through the subastragaloid articulation.

Unfortunately, a similar answer cannot be applied to the persistent painful after-results of the type of fracture under discussion by Prince. I heartily concur with the author in the belief that the open operative procedures are indicated in cases of fractures about the ankle followed by union in malalignment.

ACRODYNIA

A. J. SCOTT, JR.*

DISCUSSION *by William Palmer Lucas, San Francisco; Robert G. Sharp, San Diego; Clifford D. Sweet, Oakland.*

ACRODYNIA, known also in Australia as the "pink disease," is not very common anywhere. A few sporadic cases have been reported from different localities, but none from Southern California. It has been known in France since 1828, where it was epidemic for two years, and around fifty thousand persons were affected. Acrodynia has been confused with pellagra, but careful study has differentiated the two diseases.

In this country, J. D. Bilderback was the first to describe the condition; followed later by William Weston and Albert H. Byfield, and John Zahorsky has discussed a number of these cases. Following the work of these men, case reports have come in from various parts of the country. (For a complete account of the early history and bibliography, see Abt's System of Pediatrics, Vol. II, p. 986.)

The consensus of opinion is that there is no specific etiology of acrodynia, but it is probably infectious and not contagious. The disease runs its course, from a few weeks to several months, with remissions and exacerbations.

The following case report with pictures was submitted to Drs. Bilderback, Weston, and Zahorsky.

Dr. Bilderback wrote: "This is undoubtedly a case of acrodynia. I shall be glad to keep the report of this case."

Dr. Weston wrote: "I unreservedly concur in your diagnosis that this is a case of acrodynia. I base my opinion upon the blood findings, the nature and situation of the rash, the desquamation and sweats, the stomatitis and bleeding gums, the marked restlessness, nervousness and insomnia, loss of appetite, and I would judge from the photographs that photophobia is present. In considering acrodynia, we must not lose sight of the fact that it is a protean disease, presenting in different localities and at different seasons very different types of symptoms. This observation was made by the French authors in the early epidemics observed in France, and has since been observed in Australia, New Zealand, the West Indies, and the United States."

CASE REPORT

A male of 19 months; the second child; a normal delivery; birth weight, 9¾ pounds; breast-fed, nine months.

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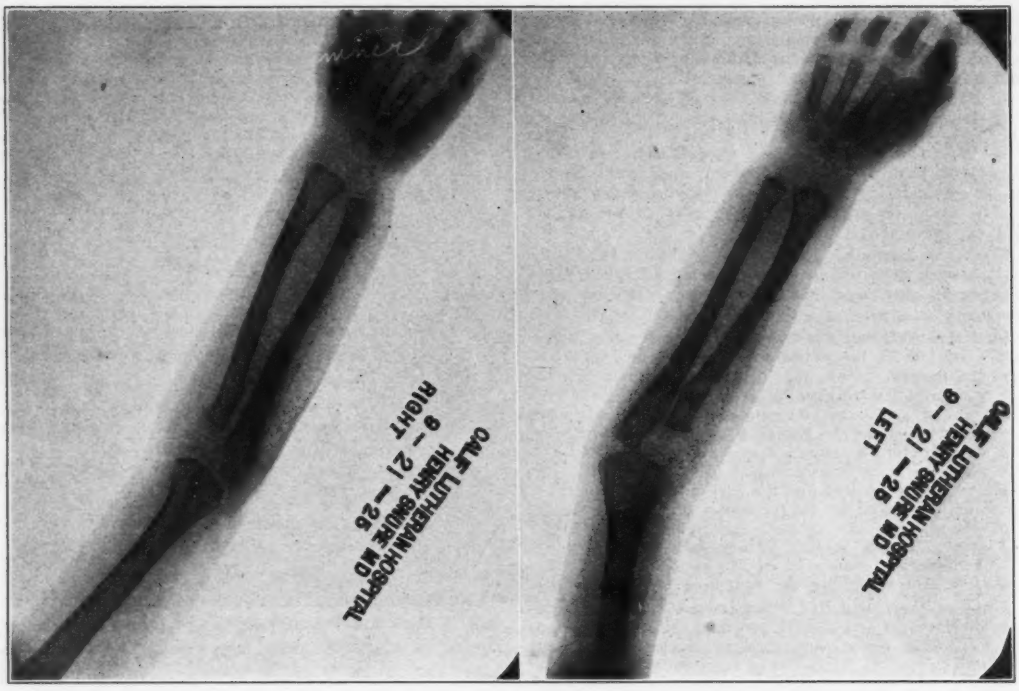
* A. J. Scott, Jr. (1401 South Hope Street, Los Angeles). M. D. University of California (Los Angeles Department), 1909. Practice limited to Pediatrics. Hospital connections: Los Angeles General, California-Lutheran, Anita M. Baldwin, Hollywood, and White Memorial hospitals. Appointments: Member California State Board of Health; Professor Clinical Pediatrics, College of Medical Evangelists, Los Angeles. Scientific organizations; Member of Los Angeles Obstetrical Society; Southwestern Pediatric Society; Fellow of the American College of Physicians. Publications: Several articles in state and national medical journals.



There is a history of lues in the family which otherwise has no bearing on the present condition.

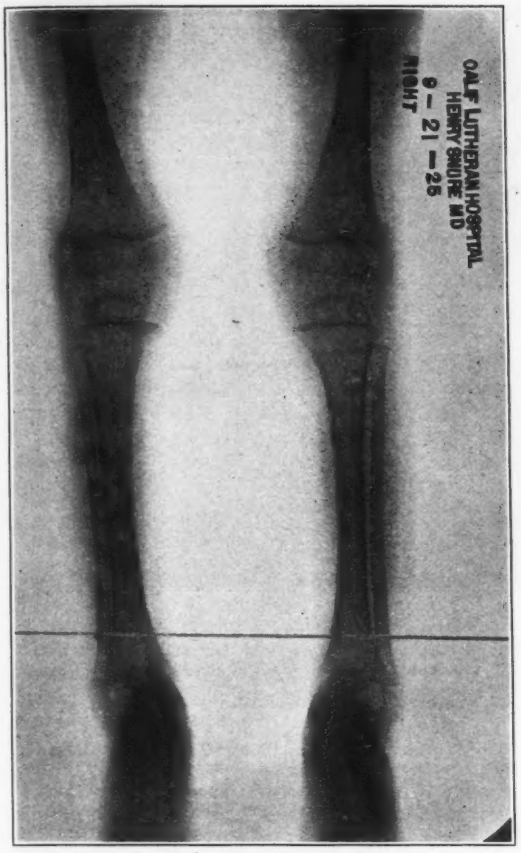
The patient was first admitted April 22, 1925, because "he did not sleep well." He had a good appetite, and bowels were regular. His disposition was good. Physical examination that date showed a normal boy with clean skin and firm muscles; body weight, 27½ pounds; height, 32 inches; temperature, 98.6. May 5, 1925, the child was brought into the skin department with a rash on the abdomen and back, which was diagnosed as a toxic rash. His temperature was 99, and the weight 26¼ pounds, a loss of 1¼ pounds since previous visit.

May 18, 1925, the skin department reported a sparsely generalized punctate or blotchy macular rash with desquamation of palms and soles, and abdomen somewhat tender. The boy was referred to the medical division with a temperature of 100, and a history that this condition began six weeks previously with an eruption, first on the abdomen and then on the back, of small red papules; about one week later it started on the soles of the feet as large blebs. The feet began to desquamate, leaving a reddened base with minute vesicles and desquamating areas. There was very little fever. The child was cross and nervous. Sweating started two weeks before our examination, and sleep was poor. Three days before seeing us he had been stuporous, and had a tendency to throw his head backward. The history shows that prior to the present trouble there was a fondness for apples, water of vegetables cooked in closed vessel, and one or two soft-cooked eggs daily. Three days before the child had been taken off milk and given orange juice and meat broths, with improvement of the skin. On June 4, 1925, his temperature was 98, and the weight 23¼ pounds. Feet were still itchy, but not perspiring as much. Hands very much the same. No bleeding of the gums and no stomatitis. Was not sleeping well at night. Appetite was better. Hands and feet were cold, desquamation continuing. The child was very listless and irritable, and did not like being handled. Crawled around on the bed, seeming to find difficulty in finding a comfortable position. Would not eat anything except orange juice and milk. On June 11, 1925, the temperature was 98.6; weight, 22½ pounds. Hands and feet were improved. The rash was clearing. Stomatitis still present, but gums were not bleeding. Mother said she had noticed some blood. Two days before, the baby passed some fine sand from the bladder. Bowels were normal, and appetite improved. Had slept better the last two nights, but the mouth condition had disturbed him. Ordered chlorate of potash mouth wash after meals. On June 25, 1925, the temperature was 100.4, and the weight 21 pounds 14 ounces. Sleep was poor. Bowels somewhat costive, requiring enemas. The appetite was poor, would drink only milk and not eat. He gritted his teeth. Was nervous and restless at night. Had one sore in mouth, but gums were not bleeding. He was getting very emaciated. Ordered syrup hydriodic acid, fifteen drops three times a day.

The child then dropped from sight because they lived out of town, and some weeks later our social service department called to find out the reason for not returning. The mother stated she had taken him to an osteopath for four weeks with a gradual losing of ground, then to a chiropractor who gave quartz-light treatments and orange juice; then because of a developing pulmonary edema and suppression of the urine, called in Dr. J. J. Allen, who relieved the acute edema and started the kidneys to functioning; then began hypodermics of iron every other day and a diet of sweet milk, eggs, and brown bread toasted hard. The boy gained three pounds in two weeks, and on the stopping of iron gained only one-quarter pound in three weeks; on starting iron again he gained one-half pound a week. The diet was increased, and on September 21, 1925, he was brought back to the clinic. He was sleeping well. Bowels were moving daily. Had a good appetite, and was stronger. His body was practically clean, though the hands were still a little rough and itched some.

On April 4, 1925, Wassermann negative. On June 4, 1925, blood count: leukocytes per c. mm. 13,200; small lymphocytes, 45.5 per cent; large mononuclears, 2.5 per cent. Polynuclear: neutrophiles, 52 per cent.

On September 21, 1925, x-ray report, as follows: X-ray of knees, ankles, wrist, and elbows show no definite abnormality. There seems to be lack of calcium content in the bones extending for one-half to one inch from joint surfaces, not very marked, however. Ossification centers are normal for twenty-three months, except possibly that of the lower epiphysis of radius on right side, which is not present. Left one sharply defined; time for appearance of this center is given by most authors as two years



* The horizontal line is the result of folding of the radiograph.

of age. Isadore Cohen states his experience is that they appear the first year.

Treatment—The sustaining of strength and good nutrition, and the allaying of the intolerable itching, are the most important factors in treatment. There is no specific therapy. What one man thinks helps or cures one patient may have no effect on another. Rodda reports that tonsillectomies result in improvement in these patients, and Sweet uses quartz light. We noted improvement some weeks and not in others. After his severe relapse when under the care of the osteopath and chiropractor, Allen got good results by iron injections. This may be merely a coincidence, but well worth considering.

DISCUSSION

WILLIAM PALMER LUCAS, M. D. (490 Post Street, San Francisco)—During the past ten years, the attention of the medical world has frequently been called to new symptom complexes. Some of these have later been shown to be reappearances of diseases which had been dormant for some time, but under favorable circumstances burst out in epidemic fashion. Such, for example, are influenza and epidemic encephalitis. Other symptom complexes which are apparently without previous recognition must be accepted as new disease entities. The reports of Longcope, and Sprunt and Evans, on infectious mononucleosis would indicate a hitherto undescribed disease.

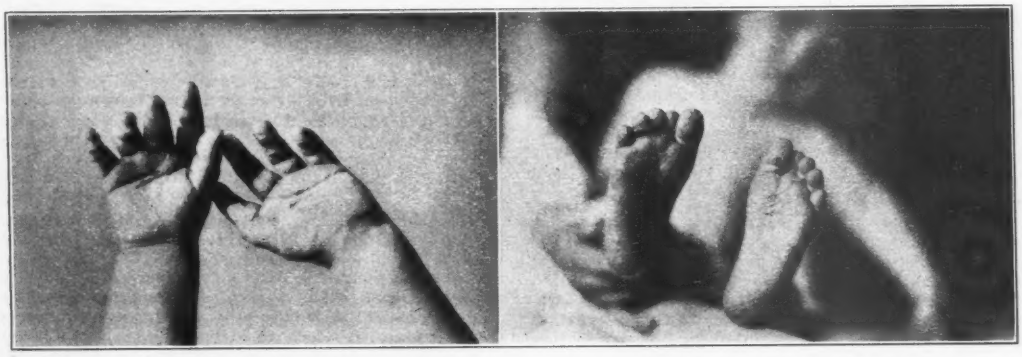
Since 1920, the American literature has contained reports of the disease syndrome called by Weston, "acrodynia." Swift of Australia, however, reported in 1914 a similar condition, which he called "erythroedema." Patterson and Greenfield state that the disease had been seen frequently in England prior to 1914. Its similarity to a disease occurring in Europe in 1828 is now admitted. Various names have been applied to the condition; that most generally accepted in the United States has been "acrodynia," which describes one of the symptoms, but one which might not always be acceptable. A more descriptive terminology would be that applied by Patterson and Greenfield, "erythroedema polyneuritis," as it emphasizes the underlying pathology.

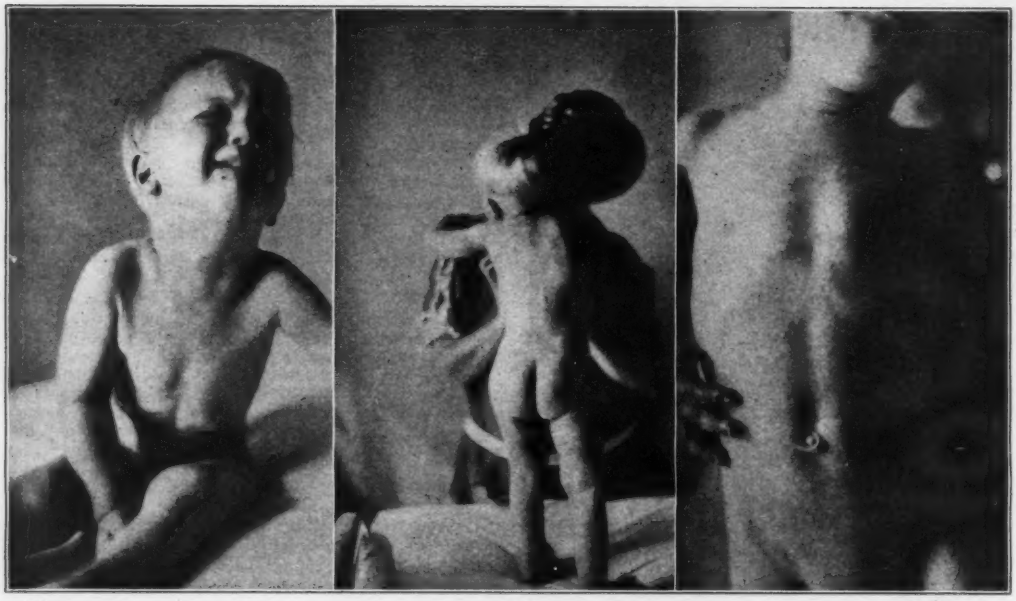
The value of individual reports is in tracing the geographical and climatic distribution. To our knowledge, cases have not been recognized as such in Southern California, although several patients have been seen around the San Francisco Bay region. Dr. Scott's report adds to our conviction that the disease has a widespread distribution. Whereas many of the cases previously reported have had a history of respiratory infection preceding, this case is without such a history. The rest of the clinical picture is classical.

ROBERT G. SHARP, M. D. (420 Walnut Street, San Diego)—While I, in nowise feel qualified to discuss acrodynia, except to comment on the rarity of its occurrence in southern California, I do feel entirely competent to commend Dr. Scott's paper in its entirety and to comment most favorably upon his report of this rare condition. I am heartily in accord with such reports. I am positive that we get enough and see enough of the ordinary stuff and believe that we keep ourselves up to date, alive, and progressive through refreshing our memories by the study of just such rare conditions as Scott has reported.

That acrodynia is rare in Southern California, I feel sure will be admitted without question. To its rarity in some parts of France, at least at certain times, I can also attest. During the war, I saw all of the hospital cases selected out of over a hundred thousand dispensary children from a population of between five hundred thousand and seven hundred thousand. This covered a period of twelve months. No cases of acrodynia was recognized among these children.

There have come under my personal care here in San Diego over six thousand children since the war, among which, I am also positive, no such cases have presented themselves. That I could not have overlooked a case of acrodynia seems certain to me, as I have had during





this time most clearly in mind the perfectly typical case presented by Dr. Lucas at the University of California Hospital. The picture was so striking, and the impression made upon me so vivid, that, to use the oft-quoted phrase from Weston's description, "such a picture of abject misery once seen will never be forgotten."

Most interesting is Rodda's report on the favorable effect tonsillectomies have in these cases. Apparently, all the writers are agreed that the condition of acrodynia is the result of an upper respiratory tract infection probably focalized in the tonsils and adenoids. At least, this is what I glean from the reports of Giffen, Squires, Sweet, and Rodda. I failed to find in any of the reports whether the quartz-light therapy had been used directly on the infected tonsils. Sweet, of course, reports that the whole of the body was exposed to the rays of the mercury vapor quartz lamp. It would be interesting to determine whether or not the quartz-light therapy, applied locally to the infected tonsils, might take the place of the tonsillectomies. Dr. Rodda's comment along this line would be worth while.

I thank Dr. Scott most heartily for calling my attention to the fact that acrodynia has occurred in Southern California, and I promise him that I will keep both eyes open and report immediately should any suspicious case come under my observation here in San Diego.

CLIFFORD SWEET, M. D. (242 Moss Avenue, Oakland, California)—Because I have seen but four cases of acrodynia, two of these through the courtesy of colleagues, I can add no discussion based on extensive personal experience. However, I feel that photophobia should be stressed as the symptom usually presented in such striking manner that one is led to think of this condition in making a differential diagnosis. Also if the teeth have erupted, looseness or actual loss of these organs may be the reason for seeking medical advice. At present we have a child under observation and quartz-light treatment, because of a very acute photophobia following an acute upper respiratory infection—no other symptom, except a constant desire to remain in bed, being present.

DOCTOR SCOTT (closing)—I wish to thank the doctors who have discussed this paper.

At the meeting of the Southwestern Pediatric Society on January 6, 1926, at which time this paper was presented, the discussion brought forth some new cases that had been seen recently but not reported—one case by Dr. Saphro; one by Dr. Berkley, and two from Long Beach, by Dr. Bliss, which shows that the condition is not as rare as it might appear to be.

Six points in the diagnosis have been mentioned by one of the Australian men, and they are the predominating symptoms: 1. Pain. 2. Pink hands. 3. Peeling. 4. Prostration. 5. Paresthesia. 6. Perspiration.

Opposition to Treatment by a Corporation—The Medical Society of the County of New York unanimously adopted the following resolution, May 24:

Whereas, It has come to the attention of this society that the New York Tuberculosis Association, Inc., as an inducement to obtain additional members therein, has made the following representations to the public, to wit:

"The New York Tuberculosis and Health Association, Inc., offers free information and advice on all health problems and expert chest examination with x-ray facilities at cost to employees of offices, stores and factories—arrangements made for placement in suitable institutions when necessary"; and

Whereas, It is understood that Mr. Harry O. Hopkins, director of the Association, has stated that the price of the expert chest examination with x-ray facilities is to be $15; and

Whereas, a Corporation is expressly forbidden to practice medicine by the laws of the state of New York; and

Whereas, Said representation made to the public leaves the cost of such proposed treatment vague and uncertain, although known to the association; and

Whereas, Such treatment, stated to be at cost, is to be given to a group of employees, irrespective of their ability to pay therefor, many of whom can readily afford to obtain such advice and treatment from their family physicians; and

Whereas, No provision is contained in such proposal to limit such treatment and advice to those persons referred to the Association by practicing physicians; and

Whereas, In the opinion of this society, such proposal, if carried out as made, would not be to the best interests of the profession or of the public; now, therefore, be it

Resolved, That the Medical Society of the County of New York is opposed to and protests against the carrying out of such proposal as made by the New York Tuberculosis and Health Association, Inc.

"A healthy mind in a healthy body" is the new slogan. But are good minds necessarily domiciled in healthy bodies? The history of the race does not prove it. There is something about a healthy body, apparently, that does not lure a good mind. It is probably too healthy. No; you cannot sort out intelligence by physical symmetry.—Clarence Darrow, American Mercury, June, 1926.

THE PRESENT STATUS OF THE TREATMENT OF SEXUAL IMPOTENCE *

By VICTOR G. VECKI, M. D., *San Francisco*

THE influence of the sexual power upon individual happiness and usefulness is tremendous. Efforts at sublimation show poor results.

Premature senility and early sexual weakness are almost synonymous. Both degrade and abolish resistance to sickness, finally to death.

Senility is due to an increase of connective tissue cells to the detriment of epithelial or functional cells.

Among the causes of impotence age ranks first, but years alone must not be considered. There is no age limit to sexual power and there is no age where impotence may not appear.

Next in frequency causing impotence are various congenital and acquired conditions of hypo- and hyper-functioning glands of internal secretion. Then come the various congenital and acquired pathological conditions of the sexual organs. The study of endocrinology has explained many congenital deformities.

Virility has a host of enemies. The list is long, never complete. Every debilitating condition impairs sexual power.

Neurasthenia, formerly considered a frequent cause of impotence, is now less in evidence. Most neurasthenic conditions are explained by glandular insufficiency or by local pathology, which formerly could not be demonstrated.

No rational, effective treatment can be devised before the patient submits to a thorough examination. The physician cannot take the chance to prescribe stimulants or give local treatments to a man who, complaining of impotence, in reality suffers from some fatal disease.

We must know the patient's age, occupation, family and personal history, past and present mode of living, exact history of the past and present sexual life and habits. The condition of the skin, the nervous, the circulatory, the respiratory and the digestive organs must be ascertained, finally, the genito-urinary organs must be inspected.

To the experienced eye the general appearance of the external genital organs may reveal a great deal. Anyone not familiar with the necessary instrumentation should not pass final judgment in any of these usually complicated cases.

The blood pressure must be considered, as frequently sexual neurasthenia is associated with abnormally low or high blood pressure.

The treatment of impotence was a distressing undertaking until study brought out increased knowledge of endocrinology and organotherapy.

The use of some internal remedy may be indicated and sufficient in some cases. The so-called aphrodisiacs sometimes accomplish something. Iron, arsenic and mainly large doses of strychnine may give results. Atropin, cautiously used, may help in some conditions, combined with some purgative may have surprisingly good results in cases of autointoxication. Narcotics should not be used, while instillations of a drop or two of novocain into the meatus against premature ejaculation is fairly safe. Alcohol is indispensable in frigidity and premature ejaculation.

No matter what drug may be employed, in the great majority of cases simultaneous feeding of dessicated glands of internal secretion is indicated. Either thyroid alone or in combination with suprarenal, pituitary, gonads and hemoglobin. Small doses should be used over a long period. The patient, however, must be constantly watched, the influence of the opotherapeutic preparations upon well-being, weight and mainly upon the blood pressure must be controlled.

In cases resisting internal opotherapy, intramuscular and intravenous injections are to be applied, but only proper material freshly prepared will do. Almost constantly good results are obtained by subcutaneous implantations as devised by Stanley.

While it is now fully established that real testicular transplantation gives very good results, only human glands or those of anthropoid apes can be used, and the difficulties of obtaining them are mostly insurmountable.

The properly performed Steinach operation prevents a premature ceasing of the internal secretory function of the testicle and frequently re-establishes such function after it was almost extinct. In some cases of premature ejaculation it is the supreme remedy, but is not absolutely necessary to treat most varieties of impotence; simpler remedies will mostly do.

Bad and unhygienic habits must be corrected, the diet regulated, the intestinal tract kept clean and in spite of all difficulties the sexual life must be regulated. Ultra-violet rays are sometimes useful, psychotherapy never to be neglected.

It should always be endeavored and it is always possible to lighten the burden of onmarching and encroaching years, but there is no short road to success in the fight against senility and its twin brother, sexual impotence.

*Author's abstract of a paper read by Victor G. Vecki at the Fifty-fifth Annual Meeting of the California Medical Society, held at Oakland, April 26 to May 1, 1926.

If some fully informed and competent person could put his finger on the pulse of this world and tell us how it is, the information so given would be welcomed in many quarters. One does not necessarily notice it as he walks abroad, but it is a fact that doubt exists in considerable quantity whether human life just now is progressing toward better conditions or worse ones. It is moving, and the impression is very general that we are at the beginning of a new age. There is a horrid suspicion, and quite well diffused, that the present population of this world has not got average sense enough to be used just as it is in peopling the new age, and that it may be necessary to get rid of quite a bit of it. It must be the consideration of that necessity which makes people anxious.—Edward S. Martin, Harpers' Magazine.

The failure of prohibition in many sections of the country is at least halting the moral reformers of America in the agitation of further efforts through statutory enactment to impose their own standards upon all men and invoke the aid of the civil authority in support of their own ethical code. An increasing number of people has begun to see that moral reform, if it is to be permanent and effective, must come from within; it cannot be imposed from without.—The Rt. Rev. Charles Fiske, D. D., Harpers' Magazine, May, 1926.

The only males in this era who boss the household are under 3 years of age.—St. Joseph News-Press.

NEUROSIS OF THE CONDEMNED: A CLINICAL SYNDROME †

REPORT OF A CASE

By JOSEPH CATTON *

CERTAIN factors may precipitate a neurosis in a predisposed individual. In certain cases impending death at the hands of the state is the one new, precipitating, exciting and proximate cause in the development of a neurosis. Predisposing factors have been present over a number of years; the stresses incident to commission of crime, arrest, trial, prison, and the rest, have each and all of them been previously experienced, but with no neurosis production. Then comes the verdict, "guilty of murder," the sentence of death and apparently inevitable execution. The last factor determines the upset.

The "neurosis of the condemned" is a functional nervous affection precipitated in a predisposed individual by impending legal execution.

This neurosis may be made up of hysterical, neurasthenic, psychasthenic, hypochondriacal, and other symptoms. It characteristically has associated with it a set of malingered symptoms. Indeed it may have much of its genesis in these initially fraudulent symptoms. Among the contributors to the development of this disease picture are the legal administrative delays between passing of sentence and execution; and the repeated conscious or unconscious suggestions of attorneys, physicians, and others which aid or produce malingered and neurotic symptoms. It is my judgment that the neurosis may be cured fairly promptly by the sole therapy of commutation of sentence.

The final steps leading to the production of this neurosis are psychogenic; partially conscious and partially not conscious. The subject finds himself in the most intolerable situation; his most fundamental instinct is being worked upon; facing practically certain death, his self-preserving faculties of both conscious and not conscious realms are activated. He may reach an adjustment, so far as external behavior is concerned. He may collapse physically and mentally in the face of the insurmountable. The fear-flight processes may be set in operation or the anger-fight. These various possible responses were seen each in goodly number in the war neuroses. In battle there was the fear of impending death, but there was the chance to fight and the chance to survive. In the case of the prisoner facing execution, little opportunity is given for the "fight" expression; one does see violent outbursts on occasions and attempts at escape. A surprisingly large number pass through the whole adventure with an apparent stoicism, with or without the psychotherapy of religious comfort. Some there are who collapse. A number, however, show behavior related in great measure to fear-flight responses; and such behavior may be consciously or unconsciously motivated. Where the behavior is voluntary, one may see malingered insanity; where unconsciously directed, one sees the neurosis.

The conditions which have been described as prison psychoses are of common occurrence. Definite clinical syndromes may develop in the presence of the physical and mental stresses related to trial, imprisonment, punishment, and the rest. These mental disturbances vary all the way from mild and ill-defined groups of symptoms, to actual neurotic and psychotic syndromes. Some of these neuroses and psychoses are similar to those which might have developed in the same individuals under other stressful circumstances. On the other hand, certain of these disturbed mental states are peculiarly due to crime and punishment factors and the symptom pictures reflect these factors.

There is much literature on the subject of prison psychoses; also there is much confusion as to their nature and their nomenclature. One sees the same or similar clinical pictures referred to as: acute prison psychoses, hysterical states, hysterical twilight states, hysterical stupor, twilight states, the Ganser syndrome, the Ganser twilight syndrome, catatonic states of degenerates, etc. In the preceding paragraph it may be noted that there is no one term which may designate all of the various mental upsets that may occur in prison.

A most important point in the diagnosis of these states is the differentiation of psychoses, neuroses, and malingered states, one from another, for immediately obvious reasons. An intangible psychopathy must not be brought forward as the genesis of all fraudulent mental disturbance, and the antisocial criminal be thus excused for his crime. Likewise a transient neurosis must not be misdiagnosed a psychosis.

Following the individual diagnosis, a medico-social diagnosis must be made. There must be some standard of social responsibility. Physicians should be fully informed in the matter, and should not be open to the criticism that they have found the roots of all malingering and all crimes in psychopathy. If the latter stand is to be tenable, one should recognize two types of psychopathy: one which includes even the slightest variations from normal average mental health; and a second which designates a psychopathy which in quality and quantity deter-

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† Chairman's address at the Fifty-fifth Meeting of the California Medical Association, Neuropsychiatry Section.

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mines frank irresponsibility, inability to comprehend a trial and defend oneself; or which precludes punishment.

I am quite aware that there is a rather widespread opinion that, with increasing age and training and experience and understanding, a physician is less and less likely to diagnose malingered insanity. I am well aware of the current opinion that the very assumption of an abnormal behavior indicates psychopathy. I am fully convinced, however, that there are definite cases of malingered insanity; and I choose not to beg a question of relation of malingering to psychopathy, by finding that the feigning itself indicates mental disorder. How similar the opinion that the major crimes are themselves indicators of a psychopathy which should excuse them! Such attitudes of mind are dangerous to society. They would dictate the opening wide of the doors of our prisons, and the caring for our "sick" offenders in ways we know not, and by time, money, energies and abilities we have not!

I have yet to read or to hear an accurate explanation made of what is meant when one states "the simulation of insanity is rare." I have referred to my records of twelve recent murder cases in which insanity was claimed; my studies of these persons indicated that actual psychoses were present in but two of the twelve, and some psychopathy in two others; in the remaining eight, insanity was simulated on behalf of the prisoner by the attorney defending him, and *in two cases the prisoner himself simulated insanity*. Here are two cases (16.6 per cent) of malingered insanity in twelve consecutive, unselected cases, in which it was my fortune to have made examinations and to have given opinion.

Recently I appeared at the trial of J. J. E., a person found guilty and sentenced on account of violation of the corporate securities act. I was his witness, and my findings led to my testifying that he had a prison neurosis. He, his family, and his attorneys alleged that he was insane, and a motion was before the Superior Court on that issue. I testified further that it was my opinion that the symptoms would entirely disappear in about three months, with the subject's adjustment to his prison life. In a recent trial I heard J. J. E. testify in another matter. The district attorney cross-examining E. asked him concerning his, E.'s, previous allegation of insanity, and E. responded that, he had fully recovered from his mental disturbance and that it had been due to his not being acclimated to prison life. The physician forming an opinion in these cases should not make a cross-section diagnosis, but a longitudinal one; the latter bears most definite relations to the social aspects of the case, e. g., responsibility, punishability, etc.

Recently, on behalf of the people, I examined an embezzler, P. J. I., and found him to show a frankly abnormal mental state. In my opinion certain aspects of his behavior were assumed, and others formed a dementia-precox-like prison psychosis. With the finding of the jury that the man was sane in the triability sense, there came a complete change in behavior. Residence in psychopathic ward was discontinued; neck tie was pulled back in line, clothes became clean and face became shaven; blank expression of face, stare of eyes, and stupid attitude disappeared; he again recognized his acquaintances; it has been rumored that his attorney left him thinking him a fakir; he came into court, and in every way an average prisoner at bar, pleaded guilty and asked for probation. During the past several months he has been attempting to make good to his accusers.

How easy in these cases one might read a psychopathy out of the disturbed behavior, and further a psychopathy which would excuse crime. Then would come a short hospitalization, and next freedom. Meanwhile, nothing would have been done to restore to those who could ill afford to lose their money, several hundred thousands of dollars! The cases just mentioned were related to crimes against property. They have their counterparts in crimes against morals and in crimes against the person. Most important, these behavior disturbances are found in those guilty of murder. My paper deals more particularly with this latter crime, and it asks the doctor to guard carefully against malingered abnormal behavior which might lead to escape from punishment or custody; and to properly evaluate automatically simulated attempts at escape from punishment or execution by the neurosis route.

REPORT OF A CASE OF NEUROSIS OF THE CONDEMNED

The case report which follows is that of Felix Sloper, the murderer of Officer Campbell of the San Francisco police force, and now under sentence to be hanged. Sloper has malingered abnormal mental behavior; he has attempted the simulation of insanity; and his simulation in a measurable degree has been unconsciously motivated, and has led to the development of the neurosis of the condemned.

Sloper had the predisposition necessary for a malingered, neurotic or psychotic outbreak, between sentence and execution. His father was a drinker; once his excessive drinking had led to a short stay in a state hospital. Sloper was rather thin, stooped, round-shouldered, undernourished, and with high, arched palate, and narrow chest at base. He had had at various times a positive blood Wassermann. There had been, however, no clinical signs of either congenital or acquired syphilis; the patient denied any initial lesion. The spinal fluid showed a cell count of 10 to one examiner; the globulin, gold curve, Wassermann, and other findings were normal. Sloper had early become a social and antisocial; already before his twelfth year he had had many small offenses to his credit. He was in and out of the reform school from 12 to 21 years of age. He served time in state prison for burglary; and had had probation and parole experience. His physical and neurological examinations were at all times negative.

Sloper had had brought to bear on him all of the various physical and psychological stresses which might have precipitated a prison neurosis or psychosis. However, no such condition had ever developed during his trials or his incarceration in reformatory or prison.

Sloper, in early 1925, was interrupted in the

course of his robbing a bank in San Francisco. Officer Campbell entered the bank and asked what was going on, and was answered by two shots from Sloper's pistol. The officer died. Sloper was arrested, confessed; but stated he had killed the officer in self-defense. Sloper's abnormal behavior developed only after he had been found guilty of murder. Then came evidences of the feigning of insanity and the presence of a neurosis.

In May, 1925, just previous to his trial for murder, my studies of Sloper indicated no mental disorder. Mental rating, together with his entire examination, indicated to me that he was of normal intelligence. I was satisfied with his responses to Terman scale testing from three years through fifteen years, and adult tests. Likewise, I found him to think rapidly; to explain self without difficulty; to always understand and give attention to the matter at hand, and not go off on side issues; not to engage in idle chatter or talking; to find terms and words readily to express himself; to make free use of past experiences to interpret new situations. I found him to be able to relate to me in detail the circumstances leading up to the crime, the crime itself, and the events which followed; to be able to give me his own orientation to the crime. He fully comprehended inherent and legal excuses for taking human life, and the eventualities when human life might be taken under other circumstances. He discussed fully the charge against him, his trial, the possible outcome, and his attorneys, the expense of trial, witnesses, etc. I found no evidence of neurosis or psychosis. One thoroughly competent examiner called by the defense found a mental rating of 8 years 8 months. This examiner realizes with me, however, that Sloper knew at the time he was being tested that the examination was not for a raise in pay or a promotion, but rather might help him *to escape* execution. The prisoner's co-operation, and the rest, under the circumstances might be accurately predicated.

During the many months of delay following sentence the usual appeals, etc., were made, and without avail. The prisoner now began to realize that legal hanging was no respecter of self-preservation urges. He began to manifest more and more a behavior which might be his one chance of escape. He could deal with the matter of his impending death in but one direct way, and that was to take his own life; his decision did not run in that direction. He could not run away. He did plan and attempt an escape; also he did try to organize a jail break. Then came the indirect ways, through simulation. Sloper voluntarily assumed certain types of conduct which might aid him; and Sloper's mental mechanisms aided him further by involuntary neurosis production.

Sloper now found himself about to be resentenced to death, the upper court having sustained the findings of the lower court. His attorneys attempted to intercept the pronouncement of this judgment by a motion that Sloper should now be tried as to his present sanity.

Sloper's general appearance at the present time might indicate that he had lost much weight; it had been alleged that he had eaten little and slept little; once there had been an apparent hunger strike. Unshaved, stooped and with hanging jaw and staring eyes, his nutrition appeared to have suffered. But he had been noted to get plenty of sleep during the days; food had been seen in his cell at other than meal times, and later it would have disappeared. There had been a slight loss of weight (by the scale) at the time of his "hunger strike"; but his actual weight at this time was the same as the day he was arrested for killing the officer. Persistent refraining from eating and continuing loss of sleep are not compatible with no loss of weight.

Sloper now meets a man in the hall of the jail; it is his brother; he appears not to fully recognize him. There was some lighting up of face at the meeting. The brother testified that he found Felix on all of his other visits during the year to appear and act in a sane manner and to fully recognize him. Sloper recognized various jailers, Doctor O'Neill, his sister, and various others. He recognized his attorneys and his trial judge, whom he called "Judge Buck" (actually Judge Louderback). He appeared not to recognize me on recent examinations. However, a year ago, following my prolonged study of him and his full co-operation, I had addressed him in the men's room during a court recess and he said, "Have I seen you before?"

Sloper, when pricked with a pin on a region of his body where he might give attention to what was going on, would show no indication that the pin prick bothered him. When given a sudden jab in a portion of the body, for example, his back, where he could not anticipate it, he would give a jump. Sloper spat on the floor during one of my examinations and rubbed his finger in it, and showed it to me and one of the jailers. An inspection of his cell failed to show any sputum or other excreta on the floor, and showed a reasonably clean wash bowl, and a not very disorderly bed. Sloper had a habit of picking at a portion of his face until he could get a very small amount of blood to ooze therefrom by pressure; then he would anoint the tip of each of his fingers with same and demonstrate to myself or his jailers.

Sloper was said to have attempted suicide. Once he placed a foot on the railing of a balcony, but was pulled back by a guard. On another occasion he had climbed up two tiers of cells; but at these times he did not jump or allow himself to fall. He had materials in his cell with which he could have hung himself had he so desired. He started a fire in his cell, but he himself kept away from the fire. During the trial this point was testified to in his hearing. Before the next court session he started another fire in his cell, and when the guards reached the scene Sloper once more was not in contact with the fire. Examination, however, showed him to have singed his hair on the right side and to have had fire near enough to the side of his face to slightly redden it.

He was seen most of the time to have a stare to his eyes. When observed without his knowledge, in his cell, the stare was absent. It was likewise absent during several minutes consumed by his drawing a picture for me. It was practically absent during

court recess, at which time he stood in an anteroom, partly away from a group of prisoners who had been testifying as to his sanity. Consistently, during court sessions, Sloper would stare when his face was up; but his position of choice was with face down, and his eye slits were normally narrowed and his eyes were not staring.

At the time of his arrest Sloper already carried his back arched slightly forward. As the months went by he walked with more of a bend. Also, he began at times to take up a position in which he sat with buttocks on heels, elbows on knees, and with hands held forward or on chin, or playing with hair, eyebrows, or face. He would raise his face and look from side to side and with eyes staring; then he would face the floor and lose the stare. When observed secretly in his cell this position, as described, might give way to more usual attitudes. Likewise, during certain of my examinations which dealt with the possibility of a prison sentence or a hospital stay replacing hanging, he assumed more average attitude. During the court recess above referred to, the patient stood quite erect in the anteroom. Certain of the staring and the attitudes and other findings I feel had in a measure gotten beyond the purely voluntary state and were hysterically motivated.

Sloper's speech and conversation seldom lost their relevancy. Very rarely they were some unintelligible mumblings. More often there would be a "Huh" or a "What." Also quite spontaneously during court proceedings he might state, "I don't want a trial—Judge Buck—I don't want a trial—he ain't dead—go ahead, what do I care—you are framing on me, and you know it"; or he might utter an oath or damn a witness. In conversation, very seldom was an answer other than logical and relevant. Sometimes there was a delay of as much as 30 to 45 seconds, but the answer would be quite to the point. Even at the height of his disturbance, it was possible to get from him statements which related to the killing of the officer, his guilt, his status, his mental condition, and his fate. All these data were in harmony with the facts of the case.

Sloper had been drawing pictures of hanging men, and of daggers and guns on the walls of his cell. He drew one such picture for me, that of a man being hanged, with rope in place, knot at side of neck, the subject with staring eyes and with tongue hanging out, and below, the word "Woodhall," the chief jailer. Asked to sign his name, he wrote quickly "B. S.," and turning gave a wise look, a slight laugh, and a full-face smile.

It is not possible at this time to go into detail concerning each of the factors developed in this case, but I would state that the most frank disturbances have been mentioned and that no symptoms which I interpreted as psychotic were found. Sloper had no phobias nor delusions; no more than the slight suspicion of pseudo-hallucinatory experiences. He had no mental disturbance out of keeping with external facts; no psychotic syndrome which would progressively tend to his own destruction mentally or physically or both, rather than the ultimate harm of the social group. His mental mechanisms of normal and abnormal sort were being set in motion, always by mental experiences which had actual and real counterparts in his environment. His situation was a definite one; he was facing execution. His faking and the neurosis were his and nature's efforts, respectively, to remove him from this most distressing situation, and the tendency was that he would be helped at the expense of others and society.

THE THERAPEUTICS OF SYPHILIS

By Howard Morrow *

Mercury given hypodermically after a course of arsphenamine or neoarsphenamine should be the routine treatment. Sulpharsphenamine should be confined to congenital lues and to patients who cannot have arsphenamine or neoarsphenamine given them. The bismuth preparations should be confined to late lues, especially those who have Wassermann-fast reactions, after courses of mercury and the arsenicals.

Discussion *by Harry E. Alderson, San Francisco; Albert M. Meads, Oakland; Samuel Ayres, Jr., Los Angeles; Le Roy H. Briggs, San Francisco.*

IN 1905, just twenty years ago, Schaudinn and Hoffman reported the etiological factor of lues. In 1906 the complement fixation test for lues was reported by Wassermann. The technique was simplified by Noguchi a few years later. Noguchi also reported on the cultivation of the organism in 1911. In 1910 Ehrlich published the supposed cure for lues by salvarsan. These reports represent only a few of the experiments that have been carried on during the past two decades in regard to the etiology, the cure, and the prevention of syphilis.

Before the introduction of the modern arsenical preparations, syphilis was treated by means of mercurial injections, mercurial rubs, and mercury and iodide of potash given by mouth. Patients who were fortunate enough to have mercury given them hypodermically over a long period of time or who were given mercurial rubs by a proper method had a chance of being cured; but the unfortunate patients who were given mercury and iodide of potash by mouth were seldom cured. Most of the so-called cures were instances of temporary arrest of the infection, which condition has been demonstrated by spinal fluid examination and by the blood Wassermann. Mercury given by mouth and iodide of potash still have their places in the treatment of syphilis, but they should not be given with the expectation of a cure.

Mercury—The best methods for the administration of mercury are by intramuscular injection or by inunction. We prefer mercury salicylate for intramuscular use, and find that it is possible to give it as a routine without much pain. Mercury is probably as important as the arsenic products in the treatment of syphilis. It finishes up the work that arsphenamine has started. Every course of arsphenamine treatment should be followed by mercury therapy, and it should be given over a period of time about three times as long as that allowed

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for arsphenamine. Some physicians prefer the use of grey oil, and a few clinicians advocate the use of the soluble salts of mercury. Mercurial rubs or mercury given hypodermically are almost universally used in conjunction with the modern preparations of arsenic.

Iodide of Potash—In the early stages of syphilis potassium iodide is of little use. In late syphilis it is often of great value. It has no effect on the treponema pallida, but it removes the tissue reaction around them and thus permits the arsenic and mercury to destroy them. It is of great value in cardiovascular and central nervous system syphilis. Recently sodium iodide has been given intravenously, and this procedure is quite popular in some clinics.

During the great war it was impossible to secure salvarsan and neosalvarsan in America, so we were obliged to use the French preparation, arsenobenzol. Later on the secrets of their manufacture were secured by various wholesale chemists, and at the present time we have American-made salvarsan and neosalvarsan under the trade-name of arsphenamine and neoarsphenamine. Many preparations of these are made and sold by wholesale druggists, but we have used only those put out by the Dermatological Research Laboratories of Philadelphia and by the Metz Laboratories of New York.

Arsphenamine and *Neoarsphenamine* have their respective advocates. In private practice, and with our experiences at the University of California Medical School, these two drugs have proved of equal therapeutic value. Patients have improved clinically, and the serology has changed about equally with the two drugs. It has been our experience that jaundice is more likely to occur following the administration of neoarsphenamine than after the use of arsphenamine. Two patients who had received courses of arsphenamine, two years later developed typical primaries with motile spirocheta pallida. In the University of California luetic clinic, between January 1, 1925, and May 1, 1925, 326 arsphenamine and 215 neoarsphenamine injections were given. The conditions under which neoarsphenamine have been used are:

1. When the veins of the patient were small or thrombosed, and a smaller amount of fluid could be injected more easily than a large quantity of fluid.

2. Whenever a patient with primary syphilis reported for his initial treatment it was found more practical to give neoarsphenamine immediately.

3. When patients arrived at the clinic after the hours when arsphenamine was given.

Sulpharsphenamine—The great advantage of this preparation is that the injection can be given in a concentrated aqueous solution subcutaneously and intramuscularly. That sulpharsphenamine is curative for lues has been frequently demonstrated, but it is generally believed that it is inferior to arsphenamine and neoarsphenamine. As intravenous injections of sulpharsphenamine seem to cause more reactions than the intramuscular, this preparation should be confined to intramuscular and subcutaneous injections. It is of great value in congenital lues and in adults where intravenous injections of arsphenamine and neoarsphenamine cannot be given. Some investigators claim that this preparation has a superior penetrative power and is of greater advantage in cerebrospinal syphilis or neurosyphilis in general. A course of sulpharsphenamine consists of ten weekly intramuscular injections of 0.6 gram each. There seems to be more danger of producing an exfoliative dermatitis with sulpharsphenamine than with arsphenamine or neoarsphenamine.

Silversalvarsan was introduced into the United States from Germany three years ago. It is objectionable because of the staining, and as it seems to have no advantage over arsphenamine its use in this country is being discontinued. At the University of California Hospital we used over one hundred tubes, but have not used it for over two years.

Tryparsamide—In 1922 this drug was released for clinical studies. It was recommended for neurosyphilis and received favorable reports, especially in cases of general paralysis of the insane. In 1923 the drug was sent to various clinics for study. Of 695 cases reported in the literature, 463 showed definite improvement. Many of these cases were general paralysis of the insane, and a large number were able to return to work with mental restoration. In many cases the blood Wassermann became negative. The general opinion is that the gold chloride curve and the serology in general are not remarkably changed by tryparsamide. The use of tryparsamide began in November, 1924, at the University of California luetic clinic. Eight cases were treated, four of which were tabes, two general paralysis of the insane, and two central nervous system syphilis. It is too soon to report on these cases. From the literature there seems to be no doubt that tryparsamide has a definite tonic effect, and that it is a valuable drug in the treatment of neuro-syphilis, but should be combined with arsphenamine and mercury.

Bismuth preparations are a new weapon in the treatment of syphilis. These preparations are of great value in late lues. They clear up luetic manifestations quicker than mercury, but more slowly than the arsenicals. Bismuth compounds should not be used to abort lues. In secondary lues the bismuth preparations are inferior to arsphenamines, both in clearing up the eruption and in changing the Wassermann reactions. In tertiary syphilis the clinical manifestations disappear rapidly and the serum reactions change more readily than in secondary syphilis. The greatest value of the bismuth preparations seems to be in cases where mercury and arsphenamine have failed. Reactions after bismuth injections are milder than those after mercury and arsphenamine. The usual course of bismuth therapy consists of ten weekly intramuscular injections. Our experiences with bismuth have been with the preparations put out by the Dermatological Research Laboratories and Metz Laboratories.

A definite routine in the treatment of syphilis cannot be advantageously followed. However, there are certain limitations of treatment that can be formulated. At the University of California Medical

School we give our patients with primary syphilis three intravenous arsphenamines (0.6 gm.) at three-day intervals, three at five-day intervals, and two at weekly intervals—eight in all. This is followed by eighteen weekly intragluteal injections of mercury salicylate (1-2 grs.). After a rest period of one to three months the patient is given another course of six weekly arsphenamine (0.6 gm.) injections and eighteen mercury salicylates. If the Wassermann reaction has been negative throughout and the spinal fluid is negative one to three months after the last treatment, all specific therapy is discontinued. The patient is kept under observation for a period of two years, and if he remains clinically and serologically well he is discharged as probably cured.

In secondary syphilis we aim to give courses of treatment consisting of six weekly arsphenamines (0.6 gm.) and eighteen weekly mercury salicylate injections. We always give at least one such course of treatment after the patient is clinically and serologically well.

In tertiary or late syphilis the treatment must be regulated according to the tissues that are involved. In cardiac or central nervous system syphilis we aim to give from one to six months of mercury and iodide before any arsenicals are used. Tertiary syphilis without any demonstrable central nervous system or cardiac lesions is treated in the same way as secondary syphilis.

In patients who continue to show a positive Wassermann reaction after three or four courses of arsphenamine and mercury therapy we resort to bismuth or sulpharsphenamine. We have had several such cases become serologically negative after the use of one or the other of these two products over a short period of time.

This procedure as outlined is a conservative one, and in the main is that advocated by Fordyce of New York. Pollitzer of New York was the first in this country to advocate the so-called intensive treatment of syphilis. He gives three injections of arsphenamine (0.6 to 0.9 gm.) at twenty-four-hour intervals. Arsenic is eliminated from the body in about twelve hours. By this intensive method the tissues are bathed in a fairly high concentration of the drug for about three days, and it more nearly approaches the sterilization anticipated by Ehrlich than in any other method. Of course, it should only be used in very early syphilis, with the object of aborting the infection. (Pollitzer, however, uses this method in practically all types of syphilis.)

DISCUSSION

HARRY E. ALDERSON, M. D. (490 Post Street, San Francisco)—In discussing this paper I wish to emphasize the fact that salvarsan treatment of lues has only been practiced for fifteen years and it is yet too early to pass upon the permanency of many of the reported cures. The question of when a luetic may be dismissed is most difficult to decide. Blood Wassermanns, spinal fluid tests, cardiovascular and other examinations, evaluation of the sufficiency of the courses given, all require most careful consideration. It is not an uncommon experience to have the various laboratory tests give negative results and the patient later on show positive serological or clinical evidence of the persistence of syphilis. Time alone will tell. We are now seeing many luetics who years ago were dismissed as cured after one or two salvarsan injections or long courses of mercury and iodides by mouth only, and at that time negative Wassermanns. At the skin and syphilis clinic of the Stanford University Medical School we treat over two hundred syphilitics weekly. We maintain special day and night clinics for this purpose. For the period between January 1, 1925, and July 29, 1925, we have given 3313 injections of neoarsphenamine and 1318 injections of bismuth.

As for the different drugs now used in lues therapy, we find that in usefulness they rank as follows: arsphenamine, bismuth, mercury, and iodine. Most of our patients are ambulatory, and they receive neoarsphenamine. When it is possible to place a patient in bed we prefer arsphenamine. This we do with all our pregnant syphilitics with very satisfactory results.

Bismuth injections are given as part of our treatment both in early and in late lues, many of the latter with persistent Wassermanns responding satisfactorily. I feel that bismuth is superior to mercury as an anti-syphilitic remedy. We have given over three thousand injections of this drug.

For many years we have been having our patients use mercury inunctions. Where carried out intelligently and faithfully they are very efficacious. However, many patients cannot be depended upon to do this, so we often resort to mercury injections. At present we are using principally bichloridol and mercury salicylate.

As for the iodides, we never administer them in early lues. After the first year of the disease or in "precocious lues" we give the drug as it has always been given—in ascending drop doses. In addition to giving these four drugs, we endeavor to put our patients in as good condition as possible by means of physiotherapy exercise and proper hygiene.

In private as well as clinic practice we find that we cannot standardize our lues therapy, because there are so many variable conditions and factors. Our treatment is individualized. At present we endeavor to keep our *early cases* under constant treatment for the first year, *allowing no rest periods*, excepting where organic conditions call for them. Moore's report on 1500 cases of lues seemed to show that relapses were in direct proportion to the amount of rest from treatment given. Judiciously applied, intensive therapy should be carried out during the first year of the disease. Naturally, we frequently check up on our patients clinically and serologically, and make sure that therapy is doing no harm. Unless we find some special contra-indications, we give continuous courses of treatment as follows: First, arsphenamine, then bismuth or mercury, then arsphenamine followed by bismuth or mercury, and so on. On account of the tendency that both mercury and bismuth have to produce gingivitis, we do not give these drugs together or consecutively. We always have a course of neoarsphenamine in between. After the first year, of course, our treatment is not so intensive unless active complications develop. On account of lack of space I have omitted discussing in detail the different preparations mentioned by the authors, but I agree in the main with their observations.

ALBERT MEADS, M. D. (1706 Broadway, Oakland, California)—Regardless of whether or not one feels that it is for the best interests of the patient, the fact remains that the majority of people infected with syphilis are being treated by general practitioners. This is because most of the public have never heard of a syphilographer, because the modern medical man knows something about the diagnosis and treatment of syphilis, because of the great assistance of the Wassermann test in diagnosing some cases, and because most medical men now have mastered the technique of intravenous and intramuscular medication. Therefore, because syphilis is being so generally treated, a paper such as Morrow's should be instructive to all who attempt any treatment whatsoever. The facts brought out concerning the standard drugs, backed up by a large clinical experience, will prove extremely valuable, and allow those of less experience to adopt a routine method of treatment which can be intelligently followed out. The value of mercury properly used, the treatment of the so-called "Wassermann-fast" cases, the placing of bismuth therapy where it belongs, and the comparison of the better known arsenicals, all

have been touched upon. After reading this paper one will feel that he has been brought up to date—as far as the therapeutics of syphilis is concerned—and can safely proceed with the recommendations coming from such a source.

SAMUEL AYRES, JR., M. D. (Westlake Professional Building, Los Angeles)—I should like to add a word or two on measures to prevent untoward effects of the drugs described by Morrow. While it is true that the average individual can take the drugs and the doses outlined, certain patients suffer serious consequences even when the drugs are properly prepared and administered. Nothing can be done to avoid entirely the occasional case of drug idiosyncrasy except to give a small initial dose. Before each administration of any arsenical preparation it should be ascertained if any itching or eruption followed the previous treatment, and if so the dose should be reduced and the interval lengthened. A routine phenolsulphonephthalein test by revealing a subnormal kidney function should serve as a warning to use great care in the administration of mercury or bismuth. The urine should be examined for albumen at least every two or three weeks. I have seen two fatalities from failing to observe these precautions and one near fatality in a patient who showed a moderately low 'phthalein output. Preliminary routine urinalysis is not enough. The kidneys may have been severely damaged at some time, with subsequent replacement of kidney tissue, by scar tissue or hydronephrotic sac and a cessation of the urinary evidences of inflammation. It would be better to allow such a patient to live five or ten years longer and die of syphilis rather than kill him with mercury. Because of occasional injury to the optic nerve, a careful ophthalmoscopic examination should always precede the administration of tryparsamide, and should be repeated if any suggestion of impaired vision occurs during treatment. These precautions may seem self-evident, but when large numbers of patients are being treated, especially in clinics, it is easy to become hurried and careless. The old admonition that if you cannot do your patient any good, at least do him no harm deserves to be called to mind occasionally.

LE ROY H. BRIGGS, M. D. (384 Post Street, San Francisco)—I was very glad to have Doctor Morrow speak such good words for mercury. In the treatment of late visceral and nerve syphilis, I have found it invaluable and of equal worth to salvarsan. In my hospital service, as well as with the more intelligent class of private patients, inunctions are used exclusively. In the one case the patients are rubbed, or rub, under the eye of an attendant, and in the other the patient is made to understand and practice the proper *modus operandi*. Such individuals must be kept under observation, especially as to gums, intestinal tract, and kidneys. The presence of microscopic blood in the urinary sediment is the earliest indication of renal irritation, and should be looked for at least every other week. Barring a severe nephritis, I know of no contra-indication to mercury.

Salvarsan is used equally vigorously in conjunction with mercury, but has more contra-indications. Liver disease, whether syphilitic or non-syphilitic, precludes its use. In syphilis of the aorta or myocardium it must be used with the greatest caution, in small doses, and preferably preceded by a course of mercury. In certain rapidly progressing nerve lesions, again great caution must be observed. Since the use of sodium thiosulphate for salvarsan dermatitis, this complication has lost considerable of its menace.

Dr. George G. Eitel has given to the Medical School of the University of Minnesota the handsome sum of $80,000. The gift is in the form of life insurance policies payable at his death, with ample funds provided by Doctor Eitel to pay the remaining premiums. In a letter to President Lotus D. Coffman of the university, the donor expresses the desire that his gift shall be "for the development of loan scholarships for the benefit of medical students." Thus an annual income of nearly $5000, plus all loans returned by student borrowers, is provided for, which amount may tide not a few, but many, medical students over hard places in their medical school days.—Federation Bulletin.

CARCINOMA OF THE COLON, NOT INCLUDING THE RECTUM

By SAMUEL ROBINSON *

Patients with sufficiently severe toxemia from complete cancerous obstruction of the bowel will die in spite of any operation, however well chosen or well executed.

Resection and anastamosis in a single operation done in the presence of obstruction is generally fatal.

Even in partial obstruction, resection and anastamosis generally fail unless the bowel has been cleared previously of its contents either by repeated irrigations when such are possible, or by a preliminary colostomy or ileostomy. Fecal retention after anastamosis is toxic; distention may cause necrosis about the suture.

Infection is the most common cause of death following resection of tumors of the colon.

Anastamoses are apt to leak, causing general or local peritonitis if the suture is imperfect; if the blood supply to the anastamosing ends is a poor one, or if it is cut off during the operation. In many patients leakage resulting from the pressure of distention proximal to the suture line causes deaths which might have been obviated by a post-operative ileostomy.

Masses of inflammatory glands may be excluded from the portion resected, but malignant glands if not removed generally hasten the disease to an early termination. Resections not designed to include most of the involved glands rarely cure, hence the large number of fatalities within the first two years.

Neglect of preoperative preparation; a choice of operation inconsistent with the patient's condition; lack of provision to avoid post-operative distention; disregard of blood supply during anastamosis; and poorly executed intestinal suturing are errors which lead to disaster.

DISCUSSION *by L. W. Hotchkiss, Santa Barbara; Andrew Stewart Lobingier, Los Angeles; Emmet Rixford, San Francisco.*

WE RECOGNIZE a great national endeavor to teach the nonmedical citizen symptoms of cancer. The surgeon meanwhile beseeches the physician promptly to recognize cancer when it is there. The physician continues to bemoan the lack of surgical skill to which his patient is ultimately subjected. These factors explain to a degree the high mortality in malignant disease of the colon, which are augmented by late consultation by the patient, misinterpretation of symptoms by the diagnostician, illy developed, illy chosen, or poorly executed surgical technique. Intestinal cancer is generally accessible, circumscribed, slow-growing, not prone to metastasize, and therefore removable. It may be said that the patient, the physician, and the surgeon are more responsible for fatalities than is the cancer itself.

To encourage the layman to earlier consultation by familiarizing him with the symptoms of this particular type of cancer is difficult. Gastric indigestion, constipation or diarrhea, mucus or blood in the stools, loss of weight, anemia, backache, rumbling bowels—these symptoms when occurring in certain combinations suggest the onset of intestinal cancer; and yet most of them are expressions also of many minor functional disorders of too common occurrence to cause the patient alarm.

If we would seek the earlier diagnosis of cancer of the colon through education of the public, I contend that we may better do so by instructing the

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layman in all ailments to consult the reputable physician rather than the cultist, the diagnostician rather than the therapeutist.

By far more important is it that we make the diagnosis when the patient arrives. This is extremely difficult in the first stages. No early symptoms are pathognomonic. All are easily attributable to functional ailments and benign lesions. I cannot imagine a distinctly early diagnosis being made other than by holding constantly in mind the possibility of bowel cancer in studying any malady associated with the gastro-intestinal tract. Given a thorough realization of the insidious nature of the first symptoms—a knowledge of those combinations of symptoms which should arouse suspicion—an untiring effort to follow up the case to verify suspicions, these alone will lead one to the early diagnosis of malignant disease of the colon.

May I group together certain hypothetical combinations of symptoms which I believe should arouse suspicion? A patient complains of vague gastric disturbance, soreness and a feeling of weight in the epigastrium, and loss of appetite. He is thinner than usual. He has seen blood mixed in the stools several times. Another patient, after years of regular bowel movements, has been constipated for several months. Occasionally he has pain in various parts of the abdomen. When at stool there is a sense of incomplete emptying of the bowel. Another patient has attacks of diarrhea. He is pale without having passed any blood. He has discomfort in the region of the cecum. A few years ago somebody removed his appendix. A fourth patient has been always constipated. A dose of salts has produced a single morning movement. Of late the same laxative has resulted in several movements. He complains of pain around his left hip, sometimes radiating down the sciatic. He does not look well.

These are the patients that pass us frequently. They are the ones who should arouse our suspicion. The sigmoidoscope, the barium enema, a scrutinous palpation of the abdomen, a stool examination, may disclose the seat of trouble; if not, observation should continue at intervals.

Forty per cent of all cases of cancer of the colon are said to continue with such indefinite symptoms as these without the development of the telltale symptoms of obstruction. Sixty per cent go from the insidious symptoms to those of chronic obstruction. And of these some 20 per cent go further to acute complete obstruction. Realizing then that the diagnosis in the nonobstruction group is rarely made, and that the chronic obstruction group is rarely diagnosed until the tumor is large enough to partially obstruct, and that most of the group destined to acute obstruction are diagnosed only at that stage, it is little wonder that the mortality is high.

The telltale symptoms of chronic obstruction are almost pathognomonic. In some place in the abdomen—and repeatedly the same place—pain will come moderate at first, but, like a labor pain, gradually developing its maximum. Then there is a rumbling, audible some distance away. The pain lessens immediately, then disappears, only to recur in the same cycle after the lapse of varying intervals. There may be a visible area of distention at the site of pain which likewise disappears at the end of the wave.

In the comparatively small group of patients who develop complete obstruction—the ones we most often see—the diagnosis is not difficult. Suffice it to say that the abdomen is generally not of a type suggesting an emergency in the accepted sense. Nausea and vomiting are sometimes absent. Distention is often delayed. Evidences of toxemia are less pronounced than in the other types of obstruction in which strangulation results in necrosis of the intestinal mucosa.

The pathology of cancer of the colon explains somewhat the diversity of symptoms; it also influences materially the selection of operative technique.

Most colon tumors are adenocarcinoma. The scirrhous type, the annular or ring carcinoma—a fibrous growth—more often invades the left colon, particularly the sigmoid. The tumor mass is generally small and not easily palpable. It is obstructive, producing the telltale symptoms. The fungating encephaloid carcinoma is an overgrowth of epithelium growing into the bowel lumen as a large palpable tumor. It more commonly occurs in the right colon, and is less likely to obstruct. The sigmoid and cecum, the most movable parts of the colon are the sites of more than half of all tumors, the sigmoid occurrence predominating. There is evidence that the portions of the bowel most subject to fecal trauma are more prone to invasion. Benign ulcers and diverticulae are rarely the origin of colon tumors. Cancer of the colon rarely occurs after the age of 70 or before 50.

With what, then, is the surgeon confronted? The person presenting may be in excellent condition, thanks to the early recognition of a beginning growth by some alert diagnostician. More often it is an individual middle-aged or elderly person in an emergency state of complete obstruction, or it is a person dragged down by months of chronic obstruction, emaciated, dehydrated, usually anemic or cachetic, toxic, and long suffering. Blood chemistry findings are bad. The CO_2 combining power may be below 45. Urea and creatinin may be high. The colon may be under tension and filled with accumulated feces from which absorption is going on, the bacterial flora being the more virulent because of prolonged obstruction. There may be evidences of local peritonitis around the pelvic colon or about the left diaphragm, with a consequent added toxemia.

In the acutely obstructed cases there is no time for preparation other than the administration of saline, or transfusion in the hemorrhage cases. Hence, the lamentable fact that the mortality in these cases after simple colostomy or ileostomy with or without exploration is as high as it is in the radical resections done prior to obstruction.

In chronic incomplete obstruction the individual's resistance may be developed. A gradual administration of alkalies improves the blood chemistry. Food with small residue, high in carbohydrates with some protein and no fats is given. Fluids by mouth and irrigation are brought up to 2500 cc. daily. Mild catharsis and a colon irrigation loosen and remove scyballae. A partially obstructed bowel may some-

times be cleared of its contents by thorough rectal irrigation even before a preliminary operation. The surgery of cancer of the colon is advancing; the results are nevertheless deplorable. The locating of the tumor, the type of the tumor, and the status of the patient are the prime factors for consideration in choosing the surgical program. A tumor of the cecum may be a large nonobstructing, movable one, with or without extensive glandular involvement; while one of the lower sigmoid may be small, hard, obstructing, difficult of delivery, adherent to neighboring viscera, and scattered into masses of glands. The patient with the growth in the right colon may be free from the toxemia of obstruction and of cachexia, while the one with the sigmoid malignant may be toxic, both from the absorption from fecal retention and from the malignancy itself. A growth in the splenic flexure may have leaked into the upper quadrant of the peritoneum, the tumor may be of the most malignant type, there may be obstruction and fecal impaction, and the patient may present the serious symptoms of three types of toxemia: infection, intestinal, and malignant. Such are the various combinations against which the method of surgical procedure must be wisely chosen.

There are records of complete resection with anastamosis in one operation performed in the presence of complete obstruction, with recovery lasting even more than fifteen years. There are also records of deaths immediately following a preliminary cecostomy or colostomy, all of which proves the significance of the degree of toxicity present at the time of operation.

The general policy of performing some drainage operation as a preliminary to resection of the tumor is quite universally accepted. The cecostomy is popular because it is serviceable regardless of the location of the growth, and because in left-sided resections the operative field is farther away from the contaminating artificial anus over the cecum. In cecal tumors the preliminary must be an ileostomy. In sigmoid tumors, of course, many prefer a colostomy. It is too commonly argued that a preliminary drainage is only indicated in the presence of complete obstruction; that in nonobstructing tumors resection may be the one and only stage. Even where partial obstruction exists, an opening in the bowel proximal to the tumor provides not only a means of irrigation, but also an added insurance against post-operative distention and pressure on the anastamotic suture line. The avoidance of distention proximal to the anastomosing suture is regarded as of such importance that many insert a catheter in the small bowel even subsequent to a resection. The clamp is often never removed from the catheter, and the latter is expelled eventually by the spontaneous closure of the ileostomy. But its presence as a safety valve is an added security.

In a patient with partial obstruction or with obstruction of short duration without marked toxemia, if exploration reveals a movable, small tumor without extensive gland involvement, it is often tempting to combine drainage and resection in one sitting, leaving the anastomosis for a later stage. The double-barrelled operation is then suitable, in which the tumor is resected between clamps placed either side and well clear of the tumor. The sides of the ends are then approximated with sutures, the two ends brought through the wound, a glass tube being inserted into each. Immediate drainage and relief of obstruction, with removal of the growth and the glands of the immediate mesentery, are provided in such an operation. Probably this type of quick excision between clamps will ultimately replace the present rather popular Miculicz three-stage operation. There are two distinct objections to the Miculicz technique. The mesentery is not removed, and any malignant glands beyond the bowel wall are left. Furthermore, although the tumor may be freed and delivered sufficiently, apparently to allow a cautery division at least two inches distal and proximal to the growth, when the time for the cautery removal arrives the bowel has retracted and the cautery division occurs too close to the tumor; too close as proved by a recurrence of carcinoma in the wound in 7 per cent of the Mayo clinic cases so handled.

If the progress of the disease is not too advanced, as evidenced by cachexia and loss of weight, and exploration discloses a limited process, in other words if a complete cure is a reasonable possibility, a preliminary drainage cecostomy or colostomy to be followed later by an open, radical, clean resection with end-to-end anastomosis, is a procedure undoubtedly superior to the Miculicz type of operation.

In those rare early, unobstructed, limited, cases in which a resection can be done at the first and only stage, and in the cases that have been saved by a preliminary drainage and have been built up for a second-stage resection, the choice of type of resection of the colon is not difficult. An end-to-end technique has quite universally replaced an end-to-side and side-to-side one when the mobility of the ends renders an end-to-end anastomosis possible. If, as in resections of the cecum or splenic flexure, one of the ends has a free mesentery and the other is fixed posteriorly, either an end-to-side or side-to-side union must be effected, or, better still, the bowel must be moved beyond the tumor until free mesentery is reached, then an end-to-end technique is possible. Illustrations of this are in resections of the cecum, wherein the bowel is removed up to the free transverse colon to which ileum may be anastomosed end to end, and in the splenic flexure resections when the descending colon also may be removed and the transverse colon anastomosed end to end with the sigmoid.

From experience with my own group of ten cases, brief reports of which are appended, and from the careful study of the reports from many clinics of the results in operations for cancer of the colon, justifies my conclusions published at the head of this discourse.

CASE REPORTS OF CANCER OF THE COLON

1. C. D., a woman, aged 62. "Colitis" for six years. Five weeks ago acute attack of "colitis." Temperature, 101.6. After a barium enema the day of operation, x-ray showed almost complete atresia at junction of descending colon and sigmoid. At time of surgical consultation two hours before operation, there was vomiting and distention. Temperature, 100; pulse, 120. Operation, November 13, 1920. Scirrhous carcinoma of lower sigmoid pal-

pated. Operation: colostomy in sigmoid. Up and about for ten months. Resection not attempted, because of chronic local retroperitoneal infection. Death in sixteen months. Metastasis in liver. No autopsy.

2. E. S., a woman, aged 52. Nausea and vomiting, and constipation for three months. Loss of weight. Mass palpated in lower epigastrium (fecal impaction). X-ray showed filling defect in stomach. Later (day before operation) obstruction of barium at splenic flexure. Pulse and temperature normal; no distention for seven days prior to operation. Day before operation, rise of pulse and beginning distention. Operation, August 24, 1920. Tumor palpated two inches below splenic flexure. First-stage Miculicz operation; catheter placed in colon proximal to tumor. Catheter removed and bowel opened proximal to tumor in twenty-four hours. No relief of obstruction. Ileus. Death on third day. Autopsy: scirrhous adenocarcinoma below splenic flexure; general peritonitis; cecum, ascending, and transverse colon enormously distended with doughy fecal impaction.

3. Van B. S., man, aged 81. Arrived in hospital with marked distention and vomiting. Temperature, 99; pulse, 100. Cathartics and enemas had been given for three days without results. Operation: local anesthesia; median incision; tumor not palpated. Colostomy made in distended transverse colon; third day colostomy draining freely; no distention. Death on the eighth day. Autopsy: Carcinoma of lower sigmoid, involving loop of small bowel, presacral region, and left bladder wall.

4. W. R. H., man, aged 59. Admitted to hospital with distention and obstruction. Twelve months previous had distention and abdominal pain, which was relieved. Nine days ago present attack began. Paroxysmal pain in abdomen; increasing distention. No bowel movements. Some evacuation of gas. Operation: local anesthesia; no exploration; colostomy; tube sutured into proximal portion of sigmoid. Draining well on second day. Death on the fourth day. Partial autopsy: annular carcinoma of rectosigmoid; metastasis in liver.

5. L. K., woman, aged 50. Illness of six weeks; severe stomach distress, belching of gas. Treated by physician, without diagnosis. Mass felt by patient in left lower quadrant. At time of surgical consultation, obstruction almost complete. Telltale symptoms severe. Local distention; mass palpated. Immediate operation, March 12, 1924. Tumor of lower sigmoid delivered. Tumor removed between clamps. Enlarged malignant glands palpated along iliac vessels. Distal end closed. Proximal end brought into wound as colostomy. In two months nodules palpated in liver. In ten months jaundice developed. Death one year after operation. Autopsy: extensive adenocarcinoma, involving retroperitoneal glands and liver; ascites.

6. B. W., woman, aged 39. Eight months ago, diarrhea. Stools said to contain parasites; disappeared under treatment, but diarrhea continued. Blood and mucus in stools for three months. Chiropractic treatment for past few months. Increasing bladder symptoms; pus in urine. Surgical consultation: pelvic examination reveals a mass in left, adherent to uterus and bladder. No symptoms of obstruction. Operation, May 29, 1924. Large malignant mass adherent in pelvis, involving bladder and a loop of small intestines. Section of small bowel removed with end-to-end suture. Sigmoid tumor excised between clamps. Distal end closed. Proximal brought into wound as colostomy. Death in twenty-four hours. Tumor specimen from sigmoid; adenocarcinoma; cauliflower projections into lumen without obstruction.

7. L. B., woman, aged 75. Entered hospital with fracture of neck of left femur and of radius, following a fall. After observation for three weeks, plaster cast applied. In history taken at admission and during period in hospital, intestinal symptoms absent. Some mental disturbance. Death without apparent cause, after gradual decline. Autopsy revealed a large nonobstructing adenocarcinoma of the splenic flexure, with some glandular extension and no metastases.

8. M. D., woman, aged 70. Gastro-intestinal disturbances for several years. Six months ago abdominal pain, nausea, and constipation. Three months ago a similar attack. Two weeks ago a third attack. Twenty pounds weight loss in past year. At hospital admission barium enema met complete obstruction at upper sigmoid. Distention very slight. Pulse 80; temperature normal. A small mass is palpable in left lower quadrant. There is occasional vomiting. Spasmodic pain occurs in region of mass. Operation, July 2, 1924. Annular carcinoma of sigmoid. First and second stage Miculicz. Bowel had retracted at time of cautery amputation, so that division was near tumor; and at the mesenteric border, tumor tissue was entered by cautery. Today, ten months after operation, there is liver involvement. There is recurrence of carcinoma in upper end of wound. X-ray shows metastasis in lungs. Death inevitable within two months.

9. F. T., man, aged 74. Cancer of recto-sigmoid, diagnosed one year ago. Operation refused. Now enters hospital with complete obstruction. Moderate distention; vomiting; leucocytosis; abdominal pain. Immediate operation. Local anesthesia. Free fibrinous fluid in abdomen. Mass felt continuous with rectal growth, extending into sigmoid. General peritonitis. Colostomy. Death in thirty-six hours. Autopsy: fibrinous peritonitis. Small abscess in recto-sigmoid region adjacent to a tumor mass. Adenocarcinoma.

10. P. E. B., woman, aged 66. Constipation for three years. For four months there has been spasmodic pain in the left lower quadrant, extending into the hip. Morphin habit pronounced. Marked anemia. Great emaciation. A mass is palpable in the left lower quadrant. Patient brought to hospital for colostomy to prevent complete obstruction and to reduce pain. Operation. Local anesthesia. Mass in lower sigmoid. Colostomy. Patient alive, with great reduction of pain. Prognosis: fatal.

DISCUSSION

L. W. Hotchkiss, M. D. (22 West Micheltorena Street, Santa Barbara, California)—Dr. Robinson has presented so well the subject of surgery of carcinoma of the colon that there is very little to add. I should like to emphasize again a point which has already been made, that resection and anastomosis should never be done in the presence of an obstruction. I have found that an operation in two or three stages under these conditions is the operation of choice, namely, mobilization of the growth and its fixation in the wound, and its removal by cautery at this time, with drainage of the open ends by Paul's tubes held in place by suture so that no leakage occurs. This is frequently possible as a part of the primary operation. Later the establishment of continuity of the intestinal canal by means of clamps, and finally the closure of the fistula. I have not hesitated in cases of obstruction to open and drain the intestine at the time of the primary operation rather than wait for adhesions to form, when the excision may be more difficult, due to shrinkage and retraction of the intestine, making it sometimes far from a simple procedure. The peritoneal cavity can be fully protected by careful suture, and the wound above and below the colostomy be protected by vaseline gauze, under which frequently healing occurs without infection. Early relief of the obstruction is very important and easily obtained with as little degree of danger from infection as if the opening of the gut were delayed and an ileostomy or colostomy of the opposite side done.

The question of early diagnosis is always with us. It is rarely made, and if made through the means of the x-ray in the absence of symptoms, the operation may frequently be declined by the patient unless the indications are quite positive. Many of these patients have only a slight tendency to metastasize, and so offer reasonable hope even when there is wide involvement of the intestine and mesenteric glands are enlarged.

Andrew Stewart Lobingier, M. D. (Merritt Building, Los Angeles) — Dr. Robinson's review of the surgical problems in cancer of the colon is thoughtful and timely. It seems necessary and expedient to emphasize over and over again in these discussions the importance of early diagnosis. Too often these patients are brought so late to the surgeon as to make impossible adequate surgical benefit.

We have been able to greatly lower our mortality by a free cecostomy or colostomy drainage done at once under local anesthesia and a careful preparation of the

patient for the later resection. This preparation may require two or three weeks. It is time and effort well spent to overcome the dehydration, toxemia and that concealed but insidious low resistance to the shock of operation characteristic of these patients.

When the patient is properly prepared for it, a deliberate resection with anastomosis and dissection of the involved mesenteric glands may be done with very slight unfavorable reaction. Even if metastases have occurred the re-establishment of the colonic current will be of infinite comfort to the patient until the end.

I have not favored the method of Von Miculicz. At best it is a crude procedure, and is usually inadequate for the very reasons advanced by the author of this paper.

There is no emergency of obstruction which, if it cannot be relieved by free colonic drainage, would be relieved by any form of resection. To do a resection before the patient is built up by days of preparation after the obstruction is relieved, imposes a most ill-advised hazard.

We shall do well to cultivate a sound judgment here and remember we are dealing, as has been so well emphasized by Robinson, with an exhausted surgical risk.

EMMET RIXFORD, M. D. (1795 California Street, San Francisco)—If Dr. Robinson's ten cases of carcinoma of the colon with mortality and fatal prognosis of 100 per cent were the inspiration of his paper, they have contributed by their sacrifice not a little to a better understanding on the part of the medical profession (and let us hope of the laity also) of conditions which made carcinoma of the colon one of the surgically curable forms of cancer.

If cancer of the colon is curable, why is it not more often cured? It surely ought to be. While making no pretense to originality of fact or procedure, Robinson has answered clearly and fearlessly, putting the blame where it rightly belongs. He states in concise and readable form the principles on which this disease must be attacked and incisively shows the responsibility of the medical profession in teaching the laity, in making the diagnosis before it is too late, and in developing a technique by which the practical difficulties of the problem can be overcome.

It is significant that Robinson's ten patients were operated on too late for the most part because the diagnosis was not made in time and not as early as it could have been made.

The discourse is a timely one and should have wide circulation. However, the situation is not so bad, of course, as would be indicated by the results in this particular series of cases. Larger series show practical results to justify the statements in the paper that carcinoma of the colon can and ought to be cured.

My own series, while not large, contains forty-two cases, many of which exemplify and illustrate the errors and shortcomings set forth in the paper. In one patient my own failure to make the diagnosis was the cause of a delay of several months which may have permitted liver metastasis. In another the ring carcinoma was so thin as to escape detection, even in exploratory laparotomy in spite of diagnosis, and caused a delay of six months before operative removal, yet the patient survived and died of some intercurrent infection still free from recurrence. In a third, a year was lost after diagnosis because the patient thought she was doomed, having had the rectum removed for carcinoma fifteen years before, and submitted to operation only after obstruction came on. She died of recurrence two years later. In a fourth, the physician made the diagnosis of carcinoma of the cecum, but considered the patient inoperable. Laparotomy a year and a half later, after transfusion because of anemia (hemoglobin of 15 per cent), showed the carcinoma to be of the gelatinous form, which is much less malignant than the ordinary adenocarcinoma, but at the time of operation it had become adherent to the lateral parietes over a small area. The man is still alive after almost two years, though with recurrence. In a fifth case a Christian Science practitioner was directly responsible for the delay of many months, but, notwithstanding, the patient is now alive and well, ten years after removal of the carcinomatous cecum, in spite of a hemoglobin of only 25 per cent at the time of operation.

I am a little surprised to have Doctor Robinson state that carcinoma of the colon is rare before the age of 50. The notion which we have held for many years is that intestinal carcinoma is relatively more common in the young than is carcinoma of other organs. In my own series, ten, i. e. nearly 25 per cent, were under 50, one at 26, another at 29, this latter alive now and well six years after excision of the sigmoid.

While agreeing, of course, with the principles of treatment set forth in the paper, I feel that certain points should be specially emphasized. In general, obstruction must be relieved before the gut is resected. This may be done by cecostomy or ileostomy, according to the site of the tumor, or the Mikulicz technique may be employed. In other words, in obstruction a two-stage operation is mandatory. In the absence of obstruction it is not, and even presents some disadvantages.

The Mikulicz operation mentioned in the paper and designed to minimize the dangers due to obstruction and hypertrophy of the gut is not without danger on its own account. In one of my cases, a carcinoma of the upper portion of the sigmoid, the ideal case for the Mikulicz operation, the inferior mesenteric artery was cut at the time of removal of the tumor (third stage of the operation). This was followed by gangrene of the lower segment with resulting fatal peritonitis. In other words, this so-called "critical point" of the sigmoid should receive special attention, and if its nourishing artery has to be cut its whole loop supplied by that artery should be removed.

There seems to be some difference of opinion as to the relative advantages of circular and later anastomosis. My own results have been more satisfactory with lateral anastomosis of the colon or of the ileum and colon than end to end, although I lost one patient from perforation of a gangrenous patch on the efferent loop of the colon, due to interference with its circulation by the suturing in the lateral anastomosis. Perhaps the suture line approached too near the invaginated end of the gut, or perhaps an end-to-end anastomosis would here have been preferable.

Where the colon is adherent or where the intestinal or lateral or splenic reflection of the colon seems to fix the gut, the longitudinal muscles pulling from this fixed point are apt to cause the sutures to cut out. Especially is this a real danger when the muscle has been hypertrophied in case of partial obstruction.

Of my forty-two cases, thirty-nine were operated upon by me, and of these twelve were found clearly inoperable; twenty-seven promised enough to be subjected to excision, of which ten died of peritonitis, pneumonia, etc., following the operation, while six died later of recurrence or of intercurrent affections, two not traced, and nine are now alive and still free of recurrence, three at two years, two at seven and one each at four, six, ten, and twelve years. In studying the cases critically, the conclusion is inevitable that the number of cures would have been considerably larger had there been no errors in diagnosis or in technique.

In conclusion I would again emphasize the facts that carcinoma of the colon is of slow development, metastasizes slowly, is in a part of the body readily accessible, and that when the patients escape the primary mortality of operation they remain well in a larger percentage than in carcinoma of almost any other organ. In other words, cure by operative means of carcinoma of the colon is to a larger extent than the cure of carcinoma of other parts of the body, a matter of medical and surgical technique.

Whatever we may be able to do in the future to make wealth serve the interests of the spiritual life, it must be confessed that the past does not encourage the hope that the finest virtues can be maintained except where there are large classes who are challenged to heroism by life's handicaps, but are not tempted to despair by insurmountable difficulties.—Reinhold Niebuhr, The Atlantic Monthly, June, 1926.

The process of legislating humanity into progress without first convincing it has not proved to bring about either the immediate or the lasting benefits which the slower methods produce.—World's Work.

CARDIAC DECOMPENSATION DURING PREGNANCY

By KARL L. SCHAUPP *

(From the Department of Obstetrics and Gynecology, Stanford University Medical Department)

DISCUSSION *by Caroline B. Palmer, San Francisco; H. A. Thompson, San Diego.*

IN MAKING routine examinations of all pregnant patients, one finds rather a large number who show various types of heart lesions. Many of these patients have murmurs or have a pulse that varies from the normal in rate, rhythm, or quality. Through the years the idea has been handed down that heart disease, as such, is a serious complication of pregnancy. While this holds true with some patients, one is impressed by the greater number who, having had more or less serious decompensation at some period of their pregnancies, go through labor without any real cardiac disturbance.

Where cardiac disease exists the patient must be carefully watched for signs of decompensation, and if decompensation occurs treatment should be instituted at once. Under treatment most patients improve, but where they do not we have often the added complication of an operative termination of the pregnancy. Early in pregnancy it may be a curettage, later any one of a number of operations, but in any case an anesthetic may be an added burden.

While in the preparation of this paper case histories were studied from the standpoint of lesions and symptoms, the main purpose has been to give some idea of the kind of anesthetic used, the time of administration, and such other factors as might be of use to the section of anesthesiology. All of the histories where a diagnosis of cardiac decompensation during pregnancy had been made were studied, but only those where the decompensation influenced the manner or time of termination or where grave symptoms appeared are considered. About 75 per cent of these patients were delivered at or near term spontaneously, spontaneously after induction with bags, by forceps, by version, and by vaginal, classical or poro Caesarean section. The other 25 per cent had to be terminated at or before the third month, because of the failure of the heart to improve under treatment.

The type of lesion most common in the Stanford service during the last six years was mitral insufficiency, which made up about half the cases. Mitral stenosis with insufficiency and endocarditis made up about one-sixth each, while mitral stenosis, myocarditis, aortic stenosis, aortic insufficiency and aortic stenosis with insufficiency made up the balance. Myocarditis and endocarditis, while the least common, were the most serious. Mitral stenosis came next and always caused concern. Mitral insufficiency stood the strain of labor quite well and rarely caused trouble. The aortic lesions were not the cause of very serious symptoms except in one patient who also had mitral and myocardial insufficiency.

The symptoms of cardiac failure in the pregnant woman are naturally the same as in the nonpregnant patient, except that the added burden of the pregnancy may hasten a break. The strain of nausea, vomiting, malnutrition, and the presence of fetal toxins, early in pregnancy; mechanical embarrassment to circulation by the growing uterus, the tortuosity of vessels and the elimination of wastes later cause a great burden to be thrown upon the heart. Many of the patients who pass midpregnancy can be carried to the time where the child is viable and improve as the pregnancy progresses. Here our problem becomes that of helping the patient through her parturition with the least possible strain upon the heart.

In another and slightly more common class of patients, decompensation occurs early and grows progressively worse; some even begin to show increasing signs of decompensation before they know that they are pregnant. In most such cases, if the patient comes under proper medical supervision, the symptoms can be controlled and after a more or less critical period pregnancy may continue uneventfully to term and end normally. We speak of the strain of labor upon the heart, and there can be no question that the work performed at this time is far greater than that for the same patient at any other time of her life, yet along with the greater demand nature has developed a greater reserve strength to draw upon, and so equalization is maintained. Our problem then becomes that of conserving strength and resistance.

In deciding upon the kind of anesthetic that is to be used and upon the method of its administration, the condition of the patient, as shown by signs and symptoms, must be taken into consideration. The commonest sign is the increase in the area of heart dullness to percussion, for practically all patients whose hearts are failing show this sign. This must, however, not be confused with the displacement of the heart, due to the upward pressure of the abdominal viscera. Murmurs may or may not be present, but are not in themselves a sign of decompensation.

Edema is common and is naturally important, but may be present because of some other reason such as nephritis, toxemia, or general embarrassment to the circulation of the lower extremities by increased intra-abdominal pressure.

Dyspnoea comes next in frequency, but here again too much stress must not be laid upon a symptom, because even with cardiac pathology present the cyanosis may be due to interference with the free respiratory function by upward pressure of the uterus on the diaphragm.

Pain when present is always serious. It is usually precordial and may radiate into the left shoulder and arm, but may even be present in both arms. Rarely is it present in the region of the liver.

Cough when present is the most serious symptom when it is of cardiac origin, and is often most obstinate. All of the patients who had this distressing symptom had severe decompensation.

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Cyanosis is rarely present except in grave conditions, and when it does occur calls for the most careful consideration. Here the slightest effort may prove fatal, and any interference is almost out of the question until there is improvement.

Blood-pressure readings are as important as heart examinations because compensation never returns with a falling pressure. Even when the pressure is already high during a break, it rises still higher when the symptoms improve. To illustrate, one patient had a pressure of 218/144 at the time that she was under treatment, but when she had improved it rose to 230/148. In the weeks following, however, it fell considerably, but never approached normal because of other conditions present. In another serious case, where the habitual pressure was lower, it rose from 94/60 to 114/70 upon the return of compensation.

The amount of hemoglobin present is also important, for with the exception of two patients all those presenting a serious picture had readings below 73 per cent, and some of these were as low as 40 per cent. The anemia here naturally greatly reduces the oxygen-carrying capacity of the blood and makes greater heart effort necessary.

As the choice of anesthetic depended upon the foregoing symptoms, so the choice of procedure in each case depended upon the degree of decompensation, the parity of the patient, the position of the child, the condition of the cervix, the size of the pelvis, and upon the anesthetic that was possible to administer. The latter does not mean only the kind of anesthetic, but also the amount necessary in relation to oxygen needs and to the time element of the operation. Thus a patient who is cyanotic and orthopnoeic can hardly be put flat upon an operating-table and delivered by manual dilatation or by abdominal Caesarean section; but vaginal section may be done with reasonable safety, under very light anesthesia. This is made possible because the patient can be placed upon the table with shoulders elevated and because a cutting operation on the cervix is less apt to stimulate the reflexes than the other operations do. In other patients the stimulation to the heart, as well as the relaxing effect of small amounts of ether added to the nitrous oxide and oxygen, may make abdominal section the operation of choice. This would hold true in such cases as are considered borderline, where there is disproportion between the child and the mother's pelvis, and where the labor or operation would be long if accomplished by way of the vaginal canal. In one patient of this group upon whom an abdominal Caesarean section was being done under nitrous oxide and oxygen, the pulse was sixty beats per minute; with the addition of a small quantity of ether the pulse rate rose to between 84 and 108, and the patient's condition improved.

In our series nitrous oxide and oxygen as the anesthetic of choice was favored most often, eleven times. Nitrous oxide and oxygen with ether in small quantities from time to time was used five times and ether was used four times. The length of administration varied from a few minutes to one hour and forty-three minutes. (This was a patient where sterilization followed curettage.) The length of anesthetic becomes more important when we consider what the patient has been subjected to before the operation begins, thus the thirty to forty-five minutes necessary to do a Caesarean section under nitrous oxide and oxygen does not mean as much to the patient's condition as fifteen minutes of surgical anesthesia for a difficult Scanzoni forceps operation after twelve hours of wearing labor.

Considering the fact that any anesthetic in any case adds strain and carries with it a certain risk, we naturally must seek for that which upsets equilibrium the least. This does not mean only what chemical should be used or whether it be used alone or in conjunction with some other, but in what strength and to what degree of analgesia or anesthesia. The position of the patient upon the table, the length of administration and the individual characteristics of the patient, are all points which are often overlooked but which are all important, and can be best judged by those who administer anesthetics regularly. It is for this reason that I feel that the opinion of the anesthetist is of as much importance in determining the procedure to be followed as is that of the internist. In fact it is my practice to tell the anesthetist my problem and to allow him to choose the anesthetic and to consider his advice in the selection of the procedure. In the conduct of the operation good results depend upon absolute co-operation with the anesthetist. He watches the pulse, respiration, color, blood pressure, and general condition of the patient, and is keeping constantly in mind such pathological conditions as may be present and is considering the work that the operator is attempting to accomplish.

One patient of this group was in a very serious condition. Under medical treatment in the hospital she improved so slowly that it was considered unsafe to wait longer, and it was decided to terminate the pregnancy at once. She was a multipara almost at term and the cervix was dilated three centimeters, so manual dilatation of the cervix and extraction of the child was decided upon. A physician stood beside the patient throughout the operation and felt that the patient was standing the procedure well. The anesthetist, however, was having a most unhappy time and asked that all speed compatible with safety be made, for he felt that he had a small margin of safety. He was watching pulse, respiration, and color and knew that a slight variation from the proper proportion of gas and oxygen caused a decided variation in her condition. The fact that the pulse remained steady during most of the operation was a compliment to his art rather than an indication that the patient's heart was strong.

Of all the patients who early or late had operative termination of pregnancy because of cardiac disease, there was none where the anesthetic seemed to have done any harm or to have caused any great degree of embarrassment to the heart. This means, either that the importance of cardiac disease during pregnancy has been overestimated, than an anesthetic is safe in all cases, or that the anesthetic and anesthetist were carefully chosen. I feel that the last is the true explanation and should add that almost

any patient with decompensation can be given an anesthetic safely for an obstetrical operation when the anesthetist is a physician, trained to study and understand signs and symptoms as well as in the mechanics of his art.

DISCUSSION

CAROLINE B. PALMER, M. D. (2401 Sacramento Street, San Francisco)—Several points in this paper are of outstanding importance to all who have to do with the choice and administration of anesthetics.

Unquestionably, myocarditis and endocarditis are the most serious forms of cardiac disease in relation to the anesthetic used and the method of administration. In these conditions, as well as in decompensation from any cause, nitrous oxid with a large percentage of oxygen is satisfactory for *analgesia*, but any attempt to produce surgical anesthesia with this anesthetic entails an unjustifiable hazard. These patients cannot bear the limitation of oxygen necessary to induce surgical anesthesia with nitrous oxid and oxygen alone. A decrease of oxygen below 20 per cent is never safe in the class of cases under consideration and often much higher percentages are indicated, as cyanosis should not be permitted for an instant. When the necessity for surgical anesthesia arises, it is far safer to increase the percentage of oxygen and add as small an amount of ether as will produce the desired result.

The importance of doing everything possible to shorten the duration of anesthesia is always worthy of consideration, but in this class of cases it easily may be the determining factor.

It seems to me that the keynote of the paper is the recognition of the value of co-operation between the obstetrician or surgeon and the anesthetist. Without this co-operation the best results are not possible.

H. A. THOMPSON, M. D. (Electric Building, San Diego)—This paper presents a problem that is of great interest and importance to all anesthetists, that of cardiac decompensation.

Whatever the type of lesion present, we must realize we are dealing with an abnormal heart and it may respond in an abnormal manner to any anesthetic.

We have learned that some types of lesions, notably the aortic, are more prone to cause trouble than others, except possibly myocarditis and acute endocarditis.

This seems to be contrary to the author's cases, but has been my experience.

I have had less difficulty with mitral lesions than any other.

I believe the use of gas, owing to the lesser irritation and the ease with which it can be taken, offers many advantages. Here again I believe that ethylene, with the large percentage of oxygen which may be administered with it, up to 30 to 40 per cent, in some cases with a little ether vapor if that may be necessary for complete relaxation, offers the nearest to the ideal anesthetic.

The increased relaxation, over nitrous oxide, offers a marked advantage either for a Caesarean, a version, or a rapid forceps delivery, and the recovery may be brought about rapidly by an increase in oxygen in case of weakening of the heart muscle.

I believe an opiate in small amount aids in quieting the patient, and have not found it gave any untoward symptoms to the baby.

It is very essential to produce anesthesia in a manner free from any stage of excitement, and to maintain as light an anesthesia as may be permitted by the procedure decided on.

I believe that thoughtful consideration of the anesthetist's difficulties and co-operation of the surgeon, combined with a reasonable amount of skill on the part of the anesthetist, will bring most of these very troublesome cases to a satisfactory termination.

A Washington magazine has just closed a contest on "What is a Democrat?" There were 8000 definitions—all different, of course.—Dallas News.

THE USE OF LOCAL ANESTHESIA ALONE OR COMBINED WITH GENERAL ANESTHESIA IN ABDOMINAL SURGERY

By H. A. L. RYFKOGEL AND EVERETT CARLSON *

Local anesthesia has a very important place in abdominal surgery.

In certain types of patients, particularly the aged and those whose senses have been obtunded by toxic conditions, extensive abdominal operations can be performed with local anesthesia alone.

Local anesthesia can be used alone in certain operations where the disease is limited to a single structure and where a general exploration is not indicated, e. g., appendicectomy, gastrectomy, gastro-enterostomy, gastrotomy, enterostomy, repair of fecal fistulas, hernioplasties, removals of large tumors of the uterus or ovary, some cholecystectomies, some intestinal resections.

In many, perhaps the majority of operations, it is wise to combine a light nitrous oxide, ethylchloride or ether anesthesia with the local. Thus, in certain operations such as gastrectomy, only a brief inhalation of gas while separating adhesions or pulling on the mesenteries is necessary. Experience will teach the surgeon what manipulations produce pain, and the inhalation of anesthesia must precede and not follow them.

In operations in which the major portion will require the administration of gas, such as all operations in which the diagnosis is not complete and so require exploration, most pelvic operations, the majority of operations on the biliary tract, operations on nervous patients, etc., complete gas anesthesia should first be induced and then the tissues to be incised or manipulated should be thoroughly infiltrated with the local anesthetic. This combined or "anoci-association" is therefore indicated in the majority of abdominal operations. In order, however, to attain the greatest possible success in the method, the surgeon must train himself in infiltration anesthesia by doing as many operations as possible under local anesthesia alone, because the successful use of combination anesthesia in abdominal surgery depends on the thorough local anesthetization of the abdominal wall and other structures.

If no pain impulses pass to the central nervous system from the operative field, relaxation during the operation will be complete, and following it shock will be absent.

DISCUSSION *by Frank R. Girard, San Francisco; A. H. Rosburg, San Francisco; A. B. Cooke, Los Angeles.*

IN 1883 Alexander Wood discovered the hypodermic needle, and in 1884 Karl Koller first used cocain as a local anesthetic in surgery. In 1885 Corning showed that by interrupting the circulation very dilute solutions could be made to produce prolonged anesthesia. In 1900 Braun, having learned that injections of suprarenal extract would slow or almost interrupt local circulation, experimented on himself with combinations of this material and cocain, and showed that the anesthetic effect of solutions of cocain were thereby increased and prolonged. In 1901 Takamine isolated suprarenalin, and in 1905 Einhorn discovered novocain. In order to use novocain efficiently and safely, its mode of action must be understood.

If a solution of lower osmotic pressure than the tissue fluid be injected, salts will pass out of the cells into the solution and water will pass into the

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cells. A degree of tissue damage will occur and at first pain will be felt; later anesthesia will appear. Hyperosmotic solutions also produce pain and then anesthesia., In each instance the degree of pain and subsequent anesthesia vary directly with the degree of departure of the osmotic pressure from that normal to the tissue fluid. If an isotonic solution of an indifferent salt, such as sodium chloride be injected, no tissue damage or changes in sensation occurs. Anesthesia by tumefaction, because of the preliminary pain and damage to the tissues is no longer used by surgeons.

Novocain solutions should depend on their selective effect only, and be made isotonic with sodium chloride or other neutral salt. "Cocain and its derivatives are protoplasmic poisons that have an intensely selective action on nerve tissue, paralyzing its function without nerve damage in dilutions too weak to affect other tissues." Novocain in solution, when injected subcutaneously, diffuses partly into the tissue cells and partly into the blood stream, the rapidity of absorption varying directly with the concentration of the solution and with the vitality and activity of the circulation of the part. The slower the circulation, the greater will be the proportion of the novocain assimilated by the cells and the less will be the amount circulating in the blood stream. Novocain forms a loose chemical combination with protoplasm without permanent damage. When this combination breaks up, the novocain disintegrates into its component molecules and so does not enter the circulation as novocain. Therefore, the slower the absorption by the circulation, the greater will be the tissue combination and consequent local anesthesia and the less the general effect.

Dilute solutions, by reason of their slower osmosis, are much less toxic than concentrated solutions. .005 gm. of cocain per kilogram will severely poison a rabbit if given in 5 per cent solution intravenously, whereas poisoning will not occur if six times as much, or 0.3 gm. per kilogram, is injected in .25 per cent solution. Neither does poisoning take place if .03 gm. per kilogram in 5 per cent solution be divided into fifteen doses and administered at five-minute intervals, although one-third of this amount, or .01 gm., will produce instant death if given in one dose.

It is evident, therefore, that the occurrence and intensity of cocain poisoning depend on the concentration of the drug in the capillaries of the central nervous system, and if the drug enters the circulation slowly and well diluted, the tissue cells absorb and disintegrate it before concentration becomes greater than the central nerve cells can stand without paralysis.

The subcutaneous fatal dose of cocain is ten times the fatal dose given intravenously. A 5 per cent solution of cocain containing .1 gram per kilogram of body weight when given hypodermically is fatal, whereas the same dose given in 1 per cent solution produces practically no symptoms. It is necessary to inject five times more the amount of cocain in a .2 per cent solution than a 5 per cent solution to produce poison. Novocain is 1/10 as toxic as cocain, but must be used in twice the concentration to obtain the same local effect. If .01 gram of cocain be injected intravenously into the hind legs of two rabbits and the legs of one be ligated with a rubber band, the rabbit with the unligated legs will die in a few minutes, while the other will show no symptoms even if the band be released at the end of one hour.

We can thus understand the value of suprarenalin when added to a solution of cocain or novocain. It slows the circulation of the part into which it is injected to an extraordinary degree, and acts in the same way as the elastic ligatures of the above experiment, retarding the absorption by the circulation and increasing the osmosis into the tissues so that the local anesthesia becomes greater and more prolonged and the danger of general poisoning minimized.

The precautions that must be taken to prevent general poisoning are therefore evident:

(1) The dilution of the novocain must be as great as possible, consistent with sufficient concentration to suspend the function of nerve tissue.

(2) The solution must be held in the tissues long enough for the novocain to combine with the protoplasm. Suprarenalin or ligatures will accomplish this. The amount of the suprarenalin should correspond with the total amount of the novocain and not with the quantity of solution. Practically for every gram of novocain there should be .001 gr. of suprarenalin, and no more than .001 gm. should be used.

(3) The injection should be made very slowly, partly to prevent forcing the solution into the circulation by filtration and partly because experiments show that solutions injected slowly are less toxic than those injected rapidly.

(4) Great care must be taken not to inject the solution directly into a vein. The needle should be kept constantly moving while the injection is being made. If this is not possible, the needle should be inserted without the syringe; if no blood flows it should be slightly withdrawn and the syringe attached; while the fluid is being forced in, aspiration should be done at intervals to make sure that the point of the needle has not been thrust into a vein. These precautions are especially necessary in the caudal canal or in the neighborhood of the vertebral column, where the venous plexus is rich and absorption therefore rapid.

(5) Solutions should be made osmotically indifferent so as to avoid tissue damage and slow healing.

(6) If suprarenalin be added, care must be taken to use a fresh solution, which should be discarded if it shows the slightest discoloration. Tatum, Atkinson, and Collins have shown that veronal and paraldehyde are antidotes to cocain poisoning. If they bear the same relation to novocain, their administration prior to operation under local anesthesia may prove to be of value.

There is much disagreement concerning the extent to which local anesthesia can be used in abdominal surgery, some reserving it for exploration in extremely ill patients, and others using it throughout all their operations.

In 1866 Richardson did a Caesarean section by

freezing the line of incision with his ether spray; in 1898 Von Miculicz opened abdomens by infiltrating the abdominal wall by the method of Schleich.

In 1907 Lennander demonstrated that the abdominal viscera are almost insensitive to surgical trauma. In 1912 abdominal operations were first done under paravertebral nerve block.

In the same year Finsterer did extensive gastric and intestinal resection by injecting the base of the mesentery. In 1918 Kappis described splanchnic anesthesia by the posterior route, and a little later Braun advocated the anterior approach.

The greatest problem in local anesthesia of the abdominal cavity is the anesthetization of the posterior peritoneum.

The retroperitoneal tissue of the abdominal parietes everywhere contains a very rich plexus of sensory nerves. The slightest injury, rubbing, cutting, pinching or pulling of the parietal peritoneum is therefore very painful. The least traction on the mesentery always produces pain, but whether this is due solely to pulling on the peritoneum and retroperitoneal tissue at its base, or in part on special cerebrospinal nerves that pass through the greater and lesser splanchnics, is still not certain.

The major portion of the parietal peritoneum is supplied by the last seven dorsal, all the lumbar, and the upper sacral nerves. It is easy to anesthetize the anterior and lateral parietes by direct infiltration, but not so easy to reach the posterior peritoneum.

It is possible to anesthetize the whole peritoneum by paravertebral block, but the numerous punctures necessary and the danger from depositing a large amount of concentrated solution near the spine have caused this method, except in certain operations, to be abandoned.

Kappis, Finsterer, Braun and others believe that the mesenteries and viscera are supplied with sensory fibers through the greater and lesser splanchnics by way of communicating fibers from the sixth to the twelfth dorsal nerve, and claim that by blocking these in front of the first lumbar vertebra, operations on the stomach, duodenum, upper ileum, and biliary tract can be done without pain.

Recently, however, Meeker of the Mayo Clinic did a series of forty-two operations on the stomach, duodenum, and gall-bladder, using splanchnic anesthesia, and contrasted them with a similar series in which only the anterior abdominal wall was infiltrated.

General anesthesia during part of the operation was necessary in some of the operations in both series; but of those done with splanchnic block 38 per cent required gas or ether, as against 28 per cent of those in which the splanchnic area was not injected.

Meeker, however, used only 30 cc. of one per cent solution, as contrasted with 100 cc. of one per cent used by Kappis and Braun, or 75 cc. of one-half per cent by Finsterer.

Experiments by Meeker showed that 30 cc. was enough to infiltrate the splanchnic nerves, and from this it seems probable that the larger injections, which seem so successful in the hands of European surgeons, act by saturating and anesthetizing the peritoneum and retroperitoneal tissue at the basis of the mesenteries, and not by blocking the splanchnic nerves.

The peritoneum of the pelvis is easily anesthetized by transsacral, caudal, or perferably presacral block.

The surgeon must remember that novocain inhibits the conduction of pain before that of touch, and that the apprehensive patient will often be greatly disturbed by being conscious of the surgeon's manipulations within the abdomen, though they do not actually produce pain.

The greatest possible gentleness is thus necessary, and all motions must be deliberate and slow.

Sudden traction must be avoided and care be taken not to pull ever so lightly on the parietal peritoneum or the mesenteries beyond the anesthetized areas.

Forceful thrusting the intestines from the operative field by gauze packing and a strong arm must not be attempted, and is usually unnecessary because if the anterior wall is thoroughly infiltrated and the incision of ample length, the intestines will fall away as in a cadaver; then by posture and very gentle elastic or spring retraction and packing the necessary exposure can be made.

From the moment of the first skin prick, every possible care must be taken to avoid causing the patients sensations of touch or pain. Every additional hurt or discomfort helps to break the patient's courage.

If in the course of the operation the surgeon sees that the next step will produce pain, a small amount of gas or ether for a few moments will enable the patient to go through the subsequent painless steps with equanimity.

A tactful anesthetist, by distracting the patient's attention, can do much to avoid general narcosis, and if properly trained can keep the patient relaxed with an extraordinarily small amount of the anesthetic when the tissue has been properly infiltrated.

When a general manual exploration of the abdominal cavity is necessary, gas should be given while it is being done. The freeing of adhesions and the delivery of organs sometimes, but not always, require transient general anesthesia.

For example, in fifteen of our recent gall-bladder operations local anesthesia was used. Of these, nine required no general anesthetic; yet only two of the nine were free of adhesions.

One of the six requiring general was a neurotic patient who, in spite of splanchnic block and thorough infiltration of the abdominal wall, required very deep anesthesia to remove a nonadherent gall-bladder containing no stones.

The majority of appendectomies during the interval can be readily done under local anesthesia.

In acute appendicitis we have usually found it necessary to give gas while the organ is being separated, if adherent and delivered. For its actual amputation and for closure, gas is unnecessary.

The patient often complains of severe colic at the most gentle attempt to lift up the colon, and may state that the pain is the same as that he has been having in his attacks.

Gastro-enterostomy, or even gastrectomy, can often be done by anesthetizing the area of the incision in the anterior abdominal wall. The incision must be so long, however, that no traction is necessary.

In our service we have made but little use of splanchnic block, preferring flooding the posterior peritoneum when accessible, as in gall-bladder operations, or infiltrating, if necessary, the mesentery in gastric or intestinal operations.

However, of the four cholecystectomies in which we used the splanchnic block, no general anesthetic was needed in three. The fourth was a flat failure.

Surgery of the pelvic organs can be readily done under transsacral or presacral block. This method is particularly useful in removing large tumors in very weak patients. The anterior abdominal wall is flaccid and the intestines have been displaced by the tumor, so that after delivery no painful packing is needed. We removed a twenty-five-pound fibroid from a woman 75 years of age with a blood pressure of 225; and from a woman of 50, two ovarian adenocarcinomas which greatly distended the abdomen.

Neither complained of discomfort during the operation, nor had the slightest shock following.

When ample exposure must be obtained by packing as in the usual pus-tube case with extensive adhesions, we believe general anesthetic the method of choice with, however, thorough blocking of the anterior abdominal wall for the purpose of minimizing the amount of gas or ether used and making relaxation more complete. (In young, vigorous patients we prefer ether.)

In certain of the acute abdominal diseases, in which the patients are very ill or are in shock or collapse with low blood pressure, local anesthesia has its greatest value, especially when associated with blood transfusion or dextrose and insulin injections.

Appendiceal abscesses, perforating ulcers, empyema or partial gangrene of the gall-bladder and intestinal obstruction come in this category.

All operations on old people are more safely done under local anesthesia. In young dogs McNider has shown that ether anesthesia produces no disturbance in the acid base balance of the blood, and but little change in the amount and character of the urine or the elimination of phenolphthalein.

In dogs over 4 years old, however, a two-hour etherization markedly reduces the alkali reserve and phenolphthalein output, and causes the appearance of albumen and casts.

In intestinal obstruction evisceration can be safely made through an ample incision. A stimulating dose of ether for a few moments is here very useful.

The advantages of local anesthesia in abdominal surgery are: (1) It eliminates shock. (2) Vomiting is almost entirely absent. (3) Intestinal atony and gastric dilatation are but rarely observed. (4) Peritonitis is less frequent. (5) Mortality from pulmonary complications does not occur.

Pulmonary morbidity is apparently as frequent as in operations under general anesthesia, but the patients do not die. The statistics to this effect are abundant and convincing.

After any abdominal operation the painful wound hinders the patient in his efforts to expel the stagnating bronchial secretions in which bacteria grow.

If anthrax bacteria be smeared on the laryngeal mucous membrane of rabbits anesthetized with chloroform or ether and the anesthetic be stopped before fifteen minutes, the animals will live, but after one hour's anesthetization will perish from anthrax pneumonia. This lowered resistance of the tissues presumably accounts for the fatalities from pneumonia that follow long operations under ether anesthesia.

Following all abdominal operations, especially those on the gastro-intestinal tract, the patient should be urged frequently to expel the bronchial mucus while an attendant supports with his hands the abdominal wound.

(6) The necessity of speed is less in local anesthesia, and so in bad-risk patients more careful dissection and suturing can be done. (7) The careful handling of the tissues necessary is a most valuable training to the surgeon in what Sterling Bunnell has called atraumatic surgery. (8) Bleeding is less than under general anesthesia. (9) Post-operative acidosis is much less following local than general anesthesia.

DISCUSSION

FRANK R. GIRARD, M. D. (Flood Building, San Francisco)—Regional anesthesia is now one of the permanent methods of anesthesia. About this there can be no question. As the technical skill required for this form of anesthesia is better developed, especially in our younger men, we are going to see a steady increase in the use of this form of anesthesia. Up to recently, local anesthesia was considered useful only in minor operative procedures, but its greatest field of usefulness unquestionably is in the gravest major surgery.

Doctors Ryfkogel and Carlson have shown this very clearly in their excellent presentation of the subject. I am in hearty accord with the statements made by the authors, and in my own work have been doing an increasing number of major operations under regional anesthesia each year.

The lack of shock and general well-being of patients after prolonged and serious operations performed under local anesthesia, with or without a little nitrous oxide, stands out in a dramatic manner when compared with the same operation performed under ether. This I attribute not so much to the kind of anesthesia used as I do to the fact that under local anesthesia only the gentlest manipulations are permitted by the patient, and surgeons working with local anesthesia become expert in handling the tissues with the greatest care and gentleness. It is too bad that the same gentleness is not used when operating under ether, but unfortunately such is often not the case.

For some time past I have been giving to nervous, apprehensive patients scopolamin and morphin before operation. Scopolamin gr. 1/150, morphin gr. 1/6, one hour before the operation is begun. In very nervous patients I occasionally give an additional dose of scopolamin, gr. 1/200, but no morphin one-half hour after the first dose.

Following this treatment, the patients arrive in the operating-room quite drowsy, but they can be awakened. The preparation of the site of operation and the injection of the novocain cause little or no disturbance, and I have frequently done extensive operations on the gall-bladder, stomach, and intestines, with no other anesthetic than that injected into the abdominal wall. It must not be construed from the above, however, that all patients respond like this. I make it a rule to have a gas machine and anesthetist at the patient's head, to be used, if only

for a few moments, whenever the patient shows signs of objecting.

I wish to commend the authors for bringing the subject of regional anesthesia to our attention in such a clear and forceful manner, and I hope that their work may enthuse others to go and do likewise.

A. H. Rosburg, M. D. (Flood Building, San Francisco)—The authors have covered the subject of regional anesthesia in abdominal surgery well, and I feel that there is very little or nothing for me to add; however, a few words on the salient points of this paper might help to convert some of our ether-pouring friends to the use of this most wonderful method of anesthesia and incidentally save a few lives.

I think that most surgeons will agree that an ether anesthetic given by a well-trained anesthetist and not lasting longer than one hour is a fairly safe anesthetic, but if given over a longer period of time certainly becomes an outstanding etiological factor in the production of post-operative pneumonia.

In the hands of well-trained surgeons regional anesthesia with or without gas and oxygen, and a little ether while closing the peritoneum, is in my opinion the safe, ideal and beautiful anesthetic both for the patient and the surgeon.

As stated by the authors of this paper, the patient often develops post-operative pneumonia in spite of the fact that no ether was given; but the pulmonary infection is of a low-grade type and the patient does not die. I wish to go on record with the authors that that has been my experience in more than a hundred cases.

It goes without saying that a well-trained anesthetist, whether gas and oxygen is to be given or not, must be present at the head of the operating-table during the entire time of the operation. His duty is to watch the pulse, respiration, color of patient, etc., and to engage the patient in some interesting conversation not related in any way to surgery. This part of the operation is as important as the novocain itself. I once performed a herniotomy on a boy 10 years old under regional anesthesia and, although he admitted that he was having absolutely no pain, he became so nervous and hysterical that I was just about to call an anesthetist to give the boy some gas and oxygen, when a young orderly happened to come into the operating-room and engage the patient in a conversation about baseball. A whole can of ether or a whole tank of gas couldn't have quieted the patient any better than did this orderly. Since that time I have always asked for an anesthetist, whether the anesthetic is to be general or local or both.

The solution used should never be over .5 per cent strength novocain with four drops of the stock solution of adrenalin to the ounce of solution added. I am convinced that one can inject as much as 500 cc. into an adult at one time with perfect safety. The anesthesia is much safer and much more satisfactory when a large quantity of a weak solution is used in place of a small quantity of stronger concentration. If you inject large amounts of a weak solution of novocain in or near the right place, you will always have good anesthesia.

A most important point brought out by the authors, and often not thought of by the surgeon who uses local anesthesia only occasionally, is to keep the needle moving constantly while injecting the solution in order to avoid injecting any large amount into a blood-vessel, as novocain in any strength injected into the blood stream is very toxic.

It has been my experience that better anesthesia is obtained when the splanchnic area is injected than when only local infiltration of the peritoneum is done. The difficulty is that it is often impossible to inject the splanchnics without causing considerable pain by the necessary manipulations. In these cases I like to give a little gas and oxygen for a few seconds while the injection is made, allowing the patient to awaken just as soon as the infiltration has been finished.

Morphin and atropin should be given before the operation in the same manner that it is given before an ether anesthetic. The use of morphin and scopolamin in repeated doses to produce the so-called twilight sleep is not very satisfactory, and carries an element of danger. It could be used with regional anesthesia with great success if we had trained psychoanesthetists, noiseless surgical instruments, quiet assistants, and all the other requirements that go with good twilight-sleep anesthesia.

I have used regional anesthesia in several hundreds of abdominal operations, and have found that it is necessary to give a little gas and oxygen while injecting the splanchnics, as mentioned before, and while exploring the abdominal cavity; and to give a little ether in some cases while closing the peritoneum. It is always better to give a little ether in those cases where the abdominal cavity seems too small for its contents while closing the peritoneum than to waste a lot of time pulling and tearing the tissues.

I am glad that the authors brought out the fact that regional anesthesia in abdominal surgery teaches the surgeon to handle the tissues with care. No matter how well the region to be operated upon is blocked and infiltrated, the patient will not stand for any rough handling of the tissues.

Another great advantage of regional anesthesia over ether anesthesia, and one overlooked by the authors, is for the teaching of operative surgery. It takes a good experienced surgeon from ten to thirty minutes to do an appendectomy or a herniotomy. An ether anesthetic given for that length of time would probably harm no one. An inexperienced intern requires from one to two hours to do either one of these operations. An ether anesthetic given for that length of time is injurious, and one would naturally feel that the patient was not getting a square deal by having an intern perform the operation. By using regional anesthesia that danger is done away with, and the poor struggling intern who must get his first experience some time, although a great many surgeons don't seem to think so, is given a chance to perform his first operations under the supervision of a good surgeon.

I wish to compliment the authors on the concise way in which they have presented their paper and want to thank them for having asked me to discuss it, as I have been deeply interested in regional anesthesia for several years. Although I feel that I have added very little or nothing, I hope, together with the authors for the sake of humanity, that their most timely paper on one of the most important branches of medicine and surgery will bear fruit. We still have too many users of ether; and the sad part of it all is that the majority of these same surgeons are slow operators. A sad combination, to say the least.

A. B. Cooke, M. D. (1019 Hollingsworth Building, Los Angeles)—If local anesthesia is ever to come into its own, it can only be when its relative safety and reliability in the hands of the average surgeon have been definitely established. This is not the case at the present time. Ryfkogel and Carlson represent the exceptional rather than the average.

Employed by the novice, the methods advocated all possess an appreciable element of danger. Even the well-trained surgeon, unless he has perfected himself in the technic of their use, cannot expect more than indifferent success.

I can think of only two means of really advancing the cause of local anesthesia:

First: The anesthesia specialists should realize that local anesthesia is not only an important but an essential part of their specialty and qualify themselves accordingly, so that the surgeon would be able to select this method when indicated, as now he specifies gas or ether for the case in hand.

Second: The recent graduate who finds himself attracted to surgery should recognize the increasing prominence of local anesthesia with the public as well as the profession, and devote himself to the mastering of its technic.

That local anesthesia actually possesses the advantages enumerated by the essayists, is beyond dispute. The fact that it exacts the most scrupulous gentleness in every stage of the operative work is alone sufficient to counterbalance all difficulties and disadvantages.

I am not so enthusiastic as to believe that the method is best for all or even the majority of cases. Certain types of patients and certain kinds of cases will probably always be better handled under general anesthesia. The

psychic factor cannot be ignored. For example, I am convinced that a highly toxic goiter is far better attacked with the patient's consciousness abolished in a large proportion of cases.

The paper of Doctors Ryfkogel and Carlson is an admirable presentation of the subject, and all the more so because it is based on their own personal experience.

CLOSING OF DISCUSSION

DOCTOR RYFKOGEL (closing)—If the several simple precautions detailed in our essay are taken, local anesthesia is much less dangerous than any general anesthetic, especially if the remote as well as the immediate effects are considered. That its use requires training and experience is, of course, true, but this applies to all surgical procedure.

In recent months some who represent cults or quacks have sought to secure publicity by challenging members of the medical profession to debate such questions as, "Does Smallpox Vaccination Prevent Smallpox?" "Do Sera Benefit Humanity?" "Has Animal Experimentation Been of Benefit to Science?" Whether or not smallpox vaccination or diphtheria immunization are effective, are no mere academic subjects to be settled by the shrewd dialectician. They are matters which have been scientifically demonstrated. Unfortunately, many who attend such debates are not seekers after knowledge, but partisans whose opinions are fixed. A debate merely shows which of the contestants is the shrewder, wittier or more adroit. If the defender of a truth has feeble skill, it in no wise minimizes such truth. We are of the opinion that no effort is too great to instruct or to counsel, but we count it a loss of time and energy to merely stage a verbal contest.—Department of Health Weekly Bulletin, New York.

It takes ten or twenty years for a knowledge of new discoveries and medical standards to be understood and accepted by laymen. The people are a generation behind the times in their knowledge of what can be done for the mentally sick, and physicians usually have great difficulty in getting the patients and their families to accept the diagnosis of mental trouble that is plainly evident to the doctors. The popular opinion of a mental disorder is that it is a disgrace which is to be concealed as long as possible. The opinion is similar to that regarding tuberculosis twenty-five years ago. Physicians have the opportunity to change that opinion, just as they have educated the people regarding tuberculosis.—New York State Journ. Med., June 1, 1926.

We survey the dwindling American family and moan and beat our breasts. "Grandma," we say, "had fourteen children, and today three are considered a houseful." We forget that the fourteen children were assets to grandpa just as soon as they could pull weeds, while the three contemporary blessings are liabilities. We also overlook the new fact that under urban conditions poverty and infant mortality go hand in hand. Our cities were not planned, they just grew. If the average American family today comprised ten children, uncounted thousands of them in cities would be doomed to early death. And we cannot now help that, for we face a great many decisions about cities that we rendered long ago by default.—Chester T. Crowell.

Of all hospital beds, the proportion controlled by the national government has increased from 2.1 per cent in 1909 to 2.3 per cent in 1914, 3.1 per cent in 1918, 6.8 per cent in 1923, and 7.1 per cent in 1925. There are now 299 hospitals maintained by the national government with a total capacity of 57,091 beds, of which an average of 42,377, or 74.2 per cent, are constantly occupied. These figures cover the hospitals maintained by the United States Army, Navy, and Public Health Service, the Veterans' Bureau, and several hospitals for government beneficiaries located in the District of Columbia and elsewhere.—J. A. M. A.

INDUSTRIAL LIABILITY FOR CANCER

By ALSON R. KILGORE AND CURTIS E. SMITH *

It has become the practice of commissions to hold occupational injury responsible for cancer under certain conditions.

These conditions have been laid down and generally accepted by authorities, and compensation should be awarded as the conditions are or are not fulfilled in individual cases.

Insurance carriers should protect themselves as well as the employee by insisting on repeated examination after the immediate effects of trauma have cleared up in all cases of injury of a type likely to result in cancer. If cancer is demonstrated as soon as the swelling of contusion has gone down, the inference of pre-existing cancer can be made and injury absolved from responsibility for starting the growth. On the other hand, if cancer does develop it may be found early enough to make surgical cure possible. These considerations are especially applicable to the breast.

DISCUSSION *by Charles E. von Geldern, Sacramento; Philip Stephens, Los Angeles; R. W. Harbaugh, San Francisco.*

THERE seems to be no way in which it can be scientifically demonstrated that injuries cause or do not cause malignant tumors to develop. With the exception of the use of certain chronic irritants (usually chemical), we know of no successful attempts to produce tumors experimentally by trauma. And, in view of the frequency of spontaneous tumors and the always present possibility of simple coincidence, it is unlikely that we shall soon be able to obtain positive proof that any individual human tumor has arisen as a direct result of injury.

There is, however, certain evidence based on observation and experience, from which deductions may be drawn for practical medico-legal purposes:

(1) The conversion of a benign lesion into a malignant one by a single trauma. The best example of this is the pigmented mole, changed into malignant melanoma by the injury of incomplete surgical removal. The fact that this occurs is partly to blame for the popular notion that pigmented moles should not be disturbed, inasmuch as laymen have observed the development of hopeless cancer after such moles have been cut into, part of the mole being left.

A still more interesting example of this change, though one not so commonly observed, is the development of sarcoma from the myxoma of bone when disturbed without complete removal. The cells of myxoma of bone implant in surgical wounds probably more constantly than is the case with any other tumor tissue, and while the primary, undisturbed myxoma does not usually metastasize, the recurrences after implantation or incomplete removal change their cellular character definitely into that of sarcoma and metastasize with great constancy.

(2) The development of cancer at sites of chronic irritation. This is so common as to be generally recognized, the irritation being either mechanical,

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as in the case of a jagged tooth cutting the tongue or cheek, or chemical as in the case of the coal-tar products, or by heat. These sources of cancer will be taken up in more detail later.

(3) The results of careful history-taking and analysis in large series of cases. One finds enormous variation in the percentage of tumors ascribed to trauma by various authors, and apparently the more careful the history-taking and the more critical the analysis, the smaller the percentage so ascribed. Yet practically all the authorities agree that there is an irreducible minimum of cases in which the evidence is very convincing. W. B. Coley,[1] who writes both as a pathologist and as a corporation surgeon, makes the statement "that a single local injury may cause a carcinoma as well as a sarcoma, is no longer open to speculation. The relationship in no way depends on our ability to offer scientific explanation, nor does it depend on any one of the various hypotheses of the origin of cancer." Kaufmann[2] states that there seems to be reasonable connection between trauma and benign tumors in 2 per cent, between trauma and carcinoma in about 2 per cent, and between trauma and sarcoma in about 5 per cent, and estimates that 12 per cent of bone sarcomas are of traumatic origin.

(4) The development of cancer at the site of burns. This has been repeatedly observed as a late sequence of old burn scars, but the recent literature contains reports of at least two instances of the prompt development of cancer after burns, both incidentally of industrial origin. Mischell[3] reports the development of a typical squamous cell carcinoma within three months in an unhealed ulcer of the arm following a sulphuric acid burn. Chambers[4] reports a similar growth within four weeks in the case of a laundry fireman who burned his arm against a furnace door, the original burn having remained unhealed.

(5) The effect of injury on the rate of growth and especially the rate of metastasis of a tumor already present. Under our present compensation laws, in California at least, industry is liable if injury arising out of employment exaggerates conditions previously existing or materially hastens death from disease already present. There is abundant evidence that trauma may both increase the rate of growth of a tumor and also (and much more important) increase its rate of metastasis and consequently shorten life.

An excellent example of the first effect came under our observation in the case of a man who had several metastatic nodules on the toes and foot from a malignant pigmented mole. One of the nodules was struck by the edge of an oil drum, and within the next three or four months the injured nodule had grown to the size of a hen's egg, while the others, uninjured, had grown almost imperceptibly. Here was an exceptional opportunity for comparison of growth with and without injury, of the same tumor tissue in the same individual with all conditions alike except that of injury.

Rapid metastasis after injury is the rule in the case of breast cancers, incompletely removed by the caustic pastes of the quack, and malignant growths subjected to massage.

ESTABLISHING INDUSTRIAL LIABILITY

We cannot, therefore, dismiss without careful consideration any case of malignant disease in which injury is alleged as a factor. In discussing industrial liability, several phases of the problem appear:

1. The effect of a single injury.
   - (a) Did it cause the growth to develop in the first place?
   - (b) Did it increase the rate of growth of a tumor already present?
   - (c) Did it increase the rate of metastasis from such a tumor?
2. The effect of repeated injury or irritation.
3. The late effects of past injuries.

I. SINGLE INJURY AS A CAUSE OF TUMOR DEVELOPMENT

Authorities generally have agreed that certain reasonable conditions must have been fulfilled before the injury can be held responsible. These have been summarized by Ophüls[5] in an excellent presentation of the subject:

1. The fact of injury must be proved.
2. The injury must have been reasonably severe.
3. The growth must develop at the site of injury.
4. It must appear reasonably certain that no tumor was present before injury.
5. The growth must appear within a reasonable time after injury. The limits have been somewhat arbitrarily set, and are generally accepted at three weeks at the least and three years at the most.

To make clear the application of these rules, it will serve best to consider them in connection with one of several cases in which the insurance carrier was held liable by the California Commission, and also to a case in which no liability was adjudged.

CASE 3406—A woman of 43; kitchen helper. Her left breast was struck by a heavy iron pot which fell against her from a shelf. Pain and swelling of the breast was immediate and increased for two or three days, when she was examined by a physician and sent to the hospital for treatment. Examination then showed the entire breast swollen, with discoloration somewhat obscured by an iodin blister of the upper outer part of the breast.

She was not seen again after discharge from the hospital for nine months, when she discovered by accident a fairly large lump in the breast, which the examining physician then found to be in the upper outer quadrant of the breast. There was already extensive metastasis, and she died a few months after operation.

The facts in this case may be summarized in accordance with the conditions above, as follows:

1. The fact of injury was established.
2. The injury was severe enough to justify the physician in sending her to the hospital for its treatment.
3. The site of injury was well established by the nature of the injury itself and by the burn from iodin application found at examination. The tumor appeared at this site.
4. The equivocable evidence that no tumor existed previously is the weakest link in the chain, as it usually is. The patient's statement is of little value. Examination during the time when the whole breast was swollen and indurated cannot be depended upon to rule out the presence of a single definite lump. No examination was made after the patient's discharge from the hospital until she herself found a cancer nine months later. The insurance

carrier very definitely failed to protect both itself and the patient by insisting on one or more examinations of the breast at intervals after the swelling had gone down, when an examination would have been worth something.

5. The tumor did appear after three weeks and within three years of the time of injury.

This applicant was awarded full compensation.

CASE 2396—A laborer of 51 alleged a blow by an iron bar on the chest at about the tenth rib. He worked for six weeks, was then laid off and directly afterward complained of pain in the spine, became bedridden, cachectic, and finally died about eighteen months after injury. Autopsy showed primary carcinoma of the lung, with metastasis to the second lumbar vertebra and elsewhere.

1. The fact of injury was not established except by the patient's statement long afterward.

2. The injury was not severe enough to require any immediate treatment.

3. The growth did not develop at the site of the injury on the rib but in the center of the lung, nor did the metastasis occur at or near the injury but in the vertebra well below the level of the chest injury.

This applicant was denied compensation.

II. SINGLE INJURY INCREASING RATE OF GROWTH OF METASTASIS

Here again, positive proof is impossible to obtain because the rate of metastasis varies so greatly in tumors of the same apparent character. When, however, an individual in apparently good health receives a severe injury in the region of a growth, fails to recover even from the ordinary effects of injury and goes on to death in an unusually short time for the type of malignant growth present, the reasonable presumption is that the injury hastened death, inasmuch as we are sure that injury can have this effect.

CASE 2029—A man of 64, thrown from an automobile, landed on his abdomen and slid a few feet along the ground. He had been absolutely well before (seen nine months previously by a good physician, and physical examination then negative; weighed a day or so before injury, and was four or five pounds above usual weight).

He tried once or twice in the next three weeks to go out on automobile trips, but could not because of abdominal distress. One month after injury, his physician found epigastric tenderness and a doubtful small nodule below the ensiform. Two weeks later this nodule was the size of a walnut. X-ray then showed an extensive carcinoma of the midportion of the stomach. Definite but slight liver enlargement was noted at this time. A month later he was dead, and at autopsy it was noted that his liver was "three times normal size" and thoroughly riddled with carcinoma.

Here was a man in whom what was apparently a metastatic nodule was felt in the omentum a month after injury. It is almost inconceivable that a carcinoma could have originated in the stomach after the injury and given palpable metastasis so soon, so that the injury was not reasonably to be blamed for originating the growth. On the other hand, the metastases observed grew with astonishing rapidity, and the man was dead in less than three months. The average duration of life from the first symptoms in cancer of the stomach is at least nine months, and the Commission ruled that it was reasonable to hold the injury responsible for definite shortening of life.

III. EFFECT OF REPEATED INJURY IN INDUSTRY

That malignant disease commonly develops after long continued irritation, is much better established than that it is after a single blow. More and more examples of this process are coming to the attention of industrial bodies, and a few of the better established types will be mentioned:

(1) *Dye Worker's Cancer* [6] — Bladder cancer in anilin dye workers has been recognized in Germany since 1895. Over one hundred cases had been collected to 1920. It is of interest that the cancer appears usually several years after the first exposure in the factory, but it is not necessary that exposure should be kept up constantly until the development of tumor. In many instances the bladder cancer appeared in workers who had been out of contact with anilin dyes for ten years or more. It is also of extreme importance that in one factory where many cases were observed special safety appliances to prevent unnecessary contact with the chemicals, as well as education in special hygiene, were established in 1905, and no cases developed during the succeeding fourteen years in workers who began their exposure after the installation of these precautions.

So far this particular type of industrial cancer offers little local interest in California.

(2) *Paraffin Worker's Cancer*—Ross [7] has made an exhaustive survey of this disease, including with it cancers arising from the handling of coal products as well as those from petroleum. He finds that coal workers and handlers of coal-dust are free from trouble. Workers with blast-furnace pitch, a product from distillation at high temperature, mechanically irritating, but nearly free of oil, are also rarely subject to skin cancer. Gas tar pitch, on the other hand, a product of lower temperature distillation, containing more liquid distillate, is responsible for a considerable number of "paraffin warts" with secondary degeneration into cancer, while soot, carrying with it a large amount of low temperature volatile products, is responsible for most cases (e. g., the familiar chimneysweep's cancer).

He points out the interesting fact that cancer rarely, if ever, can be blamed on coal itself, with its mechanically irritating grit and dust, while most of the tumors in this group arise from products of distillation, not specially mechanically irritating. He deduces that there must be a specific chemical in coal and paraffin distillates, more productive of cancer the more concentrated it becomes.

In Scotland shale oil deposits have already been worked sufficiently long to have given rise to similar industrial epitheliomas. There is apparently some difference between various shale deposits in the cancer incidence among workers. Now that we are beginning to work shale deposits in this country, we shall probably see instances of industrial cancer from this source.

(3) *Cotton Spinner's Cancer* [8] — The English courts last year awarded compensation in a case of cancer of the scrotum in a "mulespinner" whose occupation brought him into contact with a moving bar causing friction near the scrotum; at the same time his overalls in this region were kept sprinkled with liquid petrolatum. Both mechanical and chemical injury may therefore have been factors in cancer production.

After this case was decided, the labor organiza-

tion traced eighty-nine cases of scrotal cancer in their membership since 1920, 30 per cent of them already fatal—a very serious industrial compensation situation.

LATE DEVELOPMENT OF CANCER FROM OCCUPATION

In the last group discussed, cancers arising from chemical irritation, it is apparent that cancer may develop several years after the exposure to chemical irritation and perhaps after the employee has changed his occupation. Under our present California law it appears that in such a case the employee would not be entitled to compensation insurance benefits, and yet he would be the subject of occupational injury just as certainly as if he suffered a fracture from a single accident. This problem may eventually require legislative attention with adjustment of the statute of limitations in such cases, in order to give the employee the full benefit of the compensation principle.

DISCUSSION

CHARLES E. VON GELDERN, M. D. (1010 Forum Building, Sacramento, California)—The paper of Doctor Kilgore and Doctor Smith leaves little for a discussion. All the important points have been covered clearly, concisely, and with proper emphasis.

I have encountered a number of cases where the patients or their heirs made the claim that the malignant growth followed injury, but I have seen only two (a sarcoma of the testis and an osteosarcoma of the scapula) where I felt that the trauma might have been the causative agent.

One of the cases described by the authors is familiar to me, namely, Case 2029. I do not agree with the findings of the Commission, for subsequent evidence showed that the patient did have symptoms for a considerable time prior to his injury.

This paper, though merely a reiteration of established opinions and facts, is a most valuable one for publication. The medical profession as a whole is not free from the fallacious "post hoc ergo propter hoc" reasoning, and such papers as this should tend to curb the unwarranted testimony of highly opinionated persons.

PHILIP STEPHENS, M. D. (1136 West Sixth Street, Los Angeles) — Any addition to our literature which will throw added light and furnish real scientific opinion on which to base decisions and awards in our compensation work is a godsend both to the surgeon caring for these questionable cases and to the commission making the awards. Kilgore's contribution is of this class.

The present compensation law has developed a peculiar psychological phase in the mind of the worker. If he develops any disability whatsoever, he attempts to assign a cause for it in some past trauma; and with this mental phase, no doubt the increased number of traumatic new growths will be legion.

While not denying that trauma does cause the actual development of malignancy, that hyperplasia incident to the inflammation and apposite to injury may continue on into neoplasm or even malignant neoplasm, the process is extremely rare. The tumor of bone or region affected goes through a certain initial stage in its development, where the pain or discomfort is so slight or absent that it is not noticed until sharply struck or injured by the laborer, who is so apt in his daily work to sustain such injury, and with the later state of actual tumefaction and increasing pain and disability the accident is sought for and the trauma and pain remembered. Our histories are, therefore, difficult to get and more difficult to interpret to the extent where we can place scientific confidence in them.

Malignancies due to a single injury are the most interesting and yet questionable, and I must add state compensation case No. 320,702, a Mexican laborer who sustained a severe bruise of the left sacral region, and within thirty days developed a tumor mass which was incised and found dry. Later, within the year, a radical operation was performed. Post-mortem examination showed not only sarcoma of the sacrum, but metastases of lung and clavicle.

I strongly recommend the careful perusal by all interested the article by Dr. H. E. Mock and John D. Ellis, Journal A. M. A., January 23, 1926.

R. W. HARBAUGH, M. D. (350 Post Street, San Francisco) — The relationship between trauma and various types of malignant growths is a problem which scientific medicine has up to date been unable to solve.

From the standpoint of causation, there will always be some doubt until we have solved the question of origin. There seems to be little doubt, however, that under certain conditions trauma does accelerate the growth of certain tumors. It is usually difficult to prove that the tumor was in existence before the injury. In most instances this proof is impossible to obtain. Many rather authentic examples of exacerbation can be added to those cited by the authors of this paper:

A. A man fell from a ladder and struck upon his shoulder, fracturing the outer end of the clavicle without any displacement. X-rays were taken within a few hours after the accident. One month later, after union was apparently firm, the patient began to cough and complain of pain over the fracture site. X-rays showed a large growth at this place now, and a careful review of the original pictures also showed a tiny growth. The conclusion is, then, that the accident accelerated the growth.

B. As a parallel case. Patient sustained a spiral fracture of the femur. A study of the x-rays taken shortly after injury did not reveal any tumor. The fracture was treated by the closed method for a period of a month or more and then, when it became necessary to operate, a spindle cell sarcoma was found at the fracture site. No one can positively say whether this blow merely caused an already existing tumor to grow rapidly or whether it was really the factor in causing the growth to form.

My belief is that it has been reasonably proved in many cases that trauma has an influence on the growth of certain tumors. Whether there is an absolute relationship as to their origin, I think there is more doubt.

The paper of the authors will be of value to any commission in deciding their cases.

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The advertising profession has the same interest in exterminating false, fraudulent, and misleading advertising that the stock exchange has in barring wildcat stocks, or the medical associations in suppressing quacks, or the bar associations in excluding shysters. Advertising depends on the confidence of the public, and any betrayal of that confidence weakens the effect of honest advertising.—Ernest Elmo Calkins, The Atlantic Monthly, May, 1926.

When you stop for a meal along the trail, take a little scouting trip over the immediate vicinity and see where the flies are feeding. Then ask yourself if you want to eat there. Chances are you won't, unless you can effectually protect your food from those friendly filth disseminators.—Ohio Health News.

- BEDSIDE MEDICINE FOR BEDSIDE DOCTORS -

An open forum for brief discussions of the workaday problems of the bedside doctor. Suggestions for subjects and discussants invited. Useful extracts from letters will be published.

THE SYMPTOMS AND EVIDENCE THAT WARRANT A DIAGNOSIS OF PYLORIC STENOSIS IN INFANTS.

The Editor—The distressing sacrifice of young lives to pyloric stenosis is largely due to delay in consulting competent physicians early enough. Similar delays are responsible for many other deaths and for much morbidity later in the lives of many children.

Many factors contribute to such delays, among them ignorance, vacillation, doubts on the part of parents, the stupid propaganda of neighbors and the standardized hokum handed out through the medical departments of magazines, department stores, chain letters, clubs and uplifting bodies of many kinds.

Pyloric stenosis is but one of the many dangers that threaten the lives and future health of infants which require the earnest personal service of the competent physician to discover and remove.

The dangerous advice of grannies of other days in the rearing of children has been largely replaced by equally incompetent services of so many kinds that the poor parents do not know whom to trust.

Every infant should be seen by the family physician at least once a month until it is one year old, and he should be the one consulted whenever a suspicion that all is not well exists.

Letters about Bedside Medicine for Bedside Doctors still continue to be encouraging, and although a number of subjects are now under discussion, we need a new one for each issue. If you have a subject in mind send it in.

Alanson Weeks,* M. D. (384 Post Street, San Francisco)—So much has been written on congenital pyloric stenosis that one should have the right to feel that no baby with this condition is being overlooked and a wrong diagnosis made. We are certain from many experiences that this is not the case. Babies are still being brought in wasted to the danger point when they should have long since either come to operation or have been cured by medical measures. It seems inconceivable that the condition which has such a plain set of symptoms could be diagnosed incorrectly. We have the record of one mother who made the diagnosis in two of her babies after her oldest child had suffered from the disease. In both instances she demanded that they be operated upon because she was so certain of the condition and did not wish them to suffer as long as had the first baby.

There are only two other pathological processes which might be mistaken for true congenital pyloric stenosis. They are pylorospasm and congenital stricture of the duodenum. Clinically it is almost impossible to differentiate in the diagnosis between congenital stricture of the duodenum and closure at the pylorus without an x-ray. Practically it is unnecessary to make such a differentiation because the treatment is surgical. One needs the Fredet operation and the other of necessity a gastroenterostomy, so that one need think only of pylorospasm.

Seldom do the symptoms of pyloric stenosis appear before the fourth week, usually about the seventh. We have seen a very definite, large, well developed, hard tumor in infants one week old, in spite of the statement of a well-known surgeon with a large experience that the disease never appears early.

All of these babies have a history of having been born normal in every way, remaining so for a time and then developing the typical picture first, of spitting up, then of real vomiting, and very shortly the vomiting becoming more projectile as the muscles of the stomach increase in strength in their attempt to overcome the obstruction. At this stage if the baby is placed in a *good light* and given a bottle, the typical waves of the stomach can be seen plainly passing from left to right. The stools now change from the type of stool which is found in pylorospasm to absolute starvation stools, namely, bile and mucus. In pylorospasm some food passes at times. In well-developed pyloric stenosis the outlet of the stomach is practically closed to food.

These symptoms which show so plainly in these babies—first, vomiting, then projectile vomiting, marked waves of the stomach, starvation stools, dehydration and loss of weight—should be enough upon which to make a very definite diagnosis, but those who have an unusually well-developed touch sense in their fingers can feel the tumor under the edge of the liver. We have found this uncertain and unnecessary, and we still insist the x-ray is unnecessary and rather difficult of use in distant country places.

Guy Cochran,* M. D. (1136 West Sixth Street, Los Angeles)—Symptoms of pyloric stenosis are so definite that its probable diagnosis is easy. The exact diagnosis is reached after a short-time observation; therefore doctors should develop the habit of thinking of pyloric stenosis in all babies from one to four months in age in whom vomiting is persistent.

Most of my patients have been healthy, breast-fed babies who when the vomiting occurs are taken off the breast and are given one or another feeding

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* **Guy Cochran** (1136 West Sixth Street, Los Angeles). M. D. Columbia P. and S., 1900; A. B. Stanford University, 1896. Graduate study: Internship Bellevue Hospital, New York, 1900-03; European centers, 1903. Previous honors: Commander U. S. N., R. F. Present hospital connections: Chief of staff Children's Hospital, Los Angeles; head of Surgery Department, Children's Hospital; member surgical staff, Hospital Good Samaritan; chairman advisory board, Hospital Good Samaritan; chief surgeon L. A. and S. L. R. R. (Union Pacific). Practice limited to Surgery since 1910. Publications: "Congenital Hypertrophic Pyloric Stenosis in Infants," (California and West. Med., April, 1924).

until by the time I see them they are nearly moribund.

The outstanding symptoms consist of a baby who is rapidly becoming dehydrated and losing weight; vomiting becomes early projectile and persistent; peristaltic gastric wave from left to right; starvation mucus stools; frequently a palpable olive-shaped tumor at the location of the pylorus.

J. C. Cummings, M. D. (Coast Highway, Carpinteria, California)—We do not usually see the early cases of pyloric stenosis of infants. The doctor is usually consulted after all home remedies and suggestions of the neighbors have failed.

The differential diagnosis of pyloric stenosis in infants is not one of the simplest that we have to deal with in the treatment of youngsters between the ages of two weeks and twelve months. Every case of persistent vomiting in young infants should be carefully investigated with the possibility of stenosis of the pylorus in mind. Functional test meals of the stomach reveal high rennin, high free hydrochloric acid and high total acidity in the resting juice, delayed emptying and absence of duodenal regurgitation. Bismuth-meal examination of the stomach gives us definite information of pyloric stenosis in infants.

My observation in pyloric stenosis of infants has been that, during the first, second to fourth week, they seem to gain weight normally; then symptoms gradually appear, with projectile violent vomiting, prolonged retention of food in the stomach which can be demonstrated with the stomach tube, drying of all the tissues with arrest of normal weight, scanty urine, exaggerated visible gastric peristalsis which begins about the fourth week, may be later appearing but is not visible in the first three weeks.

Enlargement of the pylorus can be palpated in most patients, but not before the third or fourth week of life and often only later as the stenosis progresses. Secondary symptoms appear with variation as to time and duration of the trouble: emaciation, debility, dilatation of the stomach, mucus in gastric contents and feces, symptoms of acute enteritis such as flatulence, colic, diarrhea, drowsiness, and sometimes convulsions.

I feel that one of the most important points in the treatment of pyloric stenosis in infants is in the education of parents to seek early medical advice regarding violent vomiting of children.

A. A. Bird,* M. D. (230 Grand Avenue, Oakland)—A gradual increase in the amount of food "spit up" by a normal, and especially breast-fed infant, during the second and third month of life should cause a thorough investigation to confirm or deny the suspicion of pyloric stenosis.

Should the vomiting become projectile, not merely rolling out of the mouth but splashing several inches away from the face, the abdomen should be observed for evidence of visible peristalsis. Attempt first to palpate the tumor under the edge of the liver. Then with the infant placed on its back in a slanting light, with the abdomen and lower chest uncovered, give a feeding or half-bottle of water and watch for the "hourglass" contractions which will follow each other from left to right. If they are not evident in five to ten minutes, allow a time to elapse and repeat the water or observe the next feeding.

Pylorospasm may simulate stenosis very closely, but tends to regurgitation of more or less of every meal taken; while in true stenosis the stomach may retain one or two feedings, then forcibly eject the entire amount. Pylorospasm can be overcome by thick feeding with atropin, given in water before each feeding, to the point of flushing the face and body.

True stenosis when complete will not allow any food to pass, and can be overcome only by operation.

Breast milk actually so seldom disagrees with a normal infant that persistent vomiting should be the cause for a careful checking up with stenosis in mind. Valuable time should not be lost in changing from breast to bottle, or in juggling formulae, if a bottle baby, after the vomiting has reached the projectile stage and visible peristalsis is present, whether a tumor can be palpated or not.

Mabel A. Geddes,* M. D. (350 E Street, Eureka, California)—There is a widespread belief among parents that a normal baby spits up a part of its feeding and that a little vomiting is merely a sign of a full stomach. It is clearly the duty of the medical profession to educate the average mother to regard with suspicion an infant who, during the first few months, habitually regurgitates or vomits a part of his feeding, especially where there is also a loss in weight.

Very often in rural or semi-rural practice one sees a mother who does not consult her physician about the new baby after she has been dismissed by him following her confinement. She depends upon some relative or neighbor to supply the advice concerning the feeding of the infant. In several of my patients the mother did not seek medical advice until the child was in a serious condition, and when the baby was beyond the hope of surgical intervention.

It is most difficult at times to make a definite diagnosis of a true stenosis, especially in those cases where the stenosis developed gradually over a period of weeks presenting a slow decrease in weight, a mild regurgitation, with occasional projectile vomiting, and recurring attacks of constipation. It is this type of case which presents a puzzling problem, and not so much the case having the clear-cut and well-defined symptoms such as projectile vomiting, dilatation of the stomach with its characteristic motile bulging, a palpable tumor in the region of the pylorus, constipation, anhydremia, diminished urinary output, and marked emaciation.

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The symptoms of obstruction in the group of cases called "pylorospasm" are sometimes identical, showing all the physical signs of pyloric stenosis except the tumor mass indicating a hypertrophied pylorus. These cases usually show a prompt amelioration under appropriate thick feedings.

The treatment of pyloric stenosis naturally varies according to the condition of the child and the time which has elapsed since the onset of symptoms. If the baby is fairly strong and has not lost too much weight I attempt dietetic treatment. If the child is dehydrated I supply proper amounts of fluid such as normal saline subcutaneously or by the intraperitoneal route, because a child who is dehydrated will not be able to properly digest or assimilate his food. The next step is to try the thick feeding in small amounts every four hours, gradually increasing the feeding as the child begins to show a better tolerance for it, and the vomiting diminishes. If dietetic measures are of no avail the "Fredet" operation is the only recourse.

J. H. Kuser,* M. D. (San Rafael, California)—The early diagnosis of pyloric stenosis in infants is not always easy. Vomiting or regurgitation may be due to simple pyloric spasm. But as time elapses vomiting continues; at first without effort, but soon assuming a projectile character. Sometimes one or two feedings will remain in the stomach only to be rejected at the next feeding. The characteristic wave from left to right can be seen on close observation and frequently a tumor mass can be palpated under the liver. In simple pyloric spasm, feeding with thickened gruels will give relief.

Another important factor is, that as breast feeding is the infant's natural food, its continual rejection should arouse the suspicion of any observant mother. But most cases come under medical care in the state of undernutrition, dehydrated, and having mucus stools. A diagnosis can be made withuot x-ray examination, and mothers ought to be instructed to seek medical advice in cases of continual vomiting with the gradual loss of weight, as a Fredet-Ramstedt operation is the only relief and it certainly has proved its value.

Enos Paul Cook,* M. D. (Sainte Claire Building, San Jose, California)—Every infant who persistently and increasingly vomits is a potential case of pyloric stenosis. If observed over a period of time, this vomiting will not cease after various modifications of the formula and will be equally persistent in the breast-fed. Early gain in weight is the rule, followed by a stationary period and finally a loss; constipation follows when less food is retained. Varying disposition behaviors have been noted from the absolutely satisfied to the constantly crying. New foods may be tolerated for a few days, but eventually it becomes evident that the baby is not retaining enough of any food to result in a gain. This is all presumptive evidence of a pyloric obstruction. Repeated watching after feeding may show the almost pathognomonic peristaltic waves, passing slowly from left to right in the upper abdomen. It will assist to have the light enter the room from a single source and at as near the level of the examining shadow which may be cast by these waves, and helps in their visualization.

Pyloric obstruction being a matter of widely varying degrees, it is evident that the more complete the obstruction is, or becomes, the more intense will be the symptoms of projectile vomiting, visible peristalsis, loss in weight, and constipation.

Conversely the presence of these symptoms in an infant justify the diagnosis of a chronic obstruction. Localizing this obstruction at the pylorus can be done most certainly by fluoroscopic examination of the infant during and following the ingestion of an opaque meal. Since, however, the only other location of an obstruction with such findings would be in the duodenum as a result of a congenital anatomical anomaly, which condition is extremely rare and amenable only to surgical treatment, it need only be done in mind as symptomatically similar.

To answer the question as to whether a pyloric obstruction is due to a true hypertrophic stenosis or is merely a spasm of the pyloric muscle, is not always easy. The intensity and persistent progression of the symptoms discussed above are certainly seen in infants who are operated upon and a stenosis found. It is my custom to rely largely upon a therapeutic test, viz., the use of small doses of atropine before meals, repeated gastric lavage, and thick cereal feedings. If with this treatment there is a sudden or even gradual cessation of vomiting, with consequent improvement in the general condition, it is presumably a case of pyloric spasm. Because after one has visualized and palpated the hard mass of a true pyloric stenosis, it is difficult to conceive of such a condition having any remissions as a result of mere change in feedings.

Information obtained by x-ray examinations has been found to be largely confirmatory. When under the fluoroscope large peristaltic waves are seen, no barium passing through the pylorus, and a four-hour plate shows a large gastric residue with little food in the small intestine, naturally it establishes the diagnosis. But the symptoms should already have done so. When the degree of obstruction varies at different times, we may visualize the stomach at a time when more or less food is passing through, so that unless several such examinations were made we might easily be misled rather than helped. It is nice to have pictures of every case, at least before deciding to operate; especially does it clarify the condition in the minds of the parents, but a very thoughtful consideration of the infant and its presenting symptoms will usually serve to predict fairly accurately the x-ray findings.

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EDITORIALS

"BOOTLEG MILK"

Many citizens can look with a certain amount of equanimity upon bootleg booze, but when the criminal methods of poisoners and grafters begin to be extended to one of the world's chief food products we are liable to see a new "clean-up week."

Not long ago intelligent people were amazed to see the health authorities of Chicago held up when they attempted to stop the sale of milk from tuberculous cows in that city.

More recently the world has been stunned by the exposures of "graft" and what-not in connection with the distribution of milk in New York. Health Commissioner Harris estimates that millions of dollars "graft" money has been accepted by health officers and employees. The "World" believes: "The facts are that for the past three or four years there has been in operation in the Department of Health a shameless system of graft based on intimidation which has imperiled the lives and health of hundreds of thousands of children in the most congested tenement districts, has sapped the resistance of invalids, has spread disease and completely demoralized a branch of the dairy business most vitally affecting the public welfare, namely, the collection and sale of so-called 'loose' milk.

"An astounding feature of this scandal is that it is founded on traffic in adulterated or below-test milk. The plan to corrupt inspectors and other officials of the Health Department was conceived, launched, and operated by big milk and cheese-handling firms, working through busy agents, who deliberately set out to lower the standard of the milk supply brought into the city in forty-gallon cans, and to distribute so-called 'bootleg' cream from sources of supply not licensed by the Board of Health."

There will be grafters as long as opportunities for graft exist and as long as men will sell their souls for a mess of pottage.

It is not likely that all the grafters and crooks are in New York and Chicago, and it might be well to move the shake-up along the line. The per capita consumption of milk is increasing faster than is the per capita rate of production of this essential food commodity. This is one explanation of the general upward trend in the cost of milk—and milk products—to the consumer, and at the same time it provides additional incentive to the dishonest.

Other and even more important elements in the increasing cost of milk and the opportunities for dishonesty are inherent in the unorganized, ineffective, and complicated methods in vogue in moving milk from the cow to the consumer. It requires no unusual intelligence to appreciate the enormous savings possible under wise organization. In fact many attempts more or less local have been made to organize this great industry. Some of these have been by government, others by private corporations, and still others by combinations of these groups.

No one has heretofore conceived a plan that could withstand the adversities—social and political—which are bound to follow any forward-looking movement. And there has been no well-conceived proposal that warranted the serious attention of men with ample means and civic consciousness subscribing to it. Nevertheless there is a tangible, easily observed, general movement toward the greater centralization of the methods of handling the production and distribution of milk. The tendency has been, and now is, definitely in the direction of monopolistic control. Whether a number of great trusts or one great monopoly could handle the milk situation to the advantage of producer and consumer would depend upon the purposes and methods of such big business. Everyone realizes, none more fully than great business organizers, the utter futility of attempting to handle the world's most important food substance by the *traditional* corporation and monopolistic methods. It is not unreasonable, however, to appreciate the possibilities of sufficient central control to insure safety and service, with costs reduced by elimination of waste, overlapping, and destructive competition. The basic principles of such a movement must be better, safer service by better organization with definite provisions for the maximum of profit allowed.

Out of the scandals in New York and Chicago may grow more intelligent handling of our most important food product.

RAISING THE LEVEL OF HEALTH KNOWLEDGE

It is logical to assume that increasing knowledge of the laws of hygiene, the causes, cures and methods of avoiding disease, would be productive of longer, happier and more useful lives. If our reasoning is sound, doctors, nurses and other large groups of citizens who have this information should reflect its value in comparative morbidity and mortality statistics. Such statistics as are available are not particularly encouraging.

The American Medical Association for years has kept careful mortality statistics among the some 150,000 physicians of the country. Examination of these records shows—with certain irrelevant exclusions—that doctors live about as long, suffer from similar complaints and die from the same general causes as do other people. Records of "periodic health examinations" of groups of doctors show about the same number and variety of defects and infirmities as are found in similar groups of citizens less well informed in matters pertaining to health.

Such evidence indicates that if doctors and others who *do* know how to live better, happier and longer fail to apply that knowledge to their own advantage and that of society, may we expect promising returns from the smattering of health information—and misinformation—now being so aggressively and expensively distributed and popularized? Many thinking physicians and other leaders in health betterment hope and try to believe that we are on the right track, but some of them are not satisfied that we are intelligently meeting the problem in the quantity, quality or methods of "health education."

"A little learning" may be a more dangerous fac-

tor in health betterment than in any other endeavor. It would be as logical to try to demonstrate Einstein's theory of relativity to individuals of average education as to make many of the intricate problems underlying health clear to the man of similar education through popular literature, slogans and clown shows. Most people who use electricity know next to nothing about it. They turn it on and off by buttons; they know a few rules of do's and don'ts and they call for expert service when in doubt.

Many doctors believe that Mr. Average Citizen's health education also should consist of a few rules about what not to do and what to do, the chief one of which is to call the "service man" when in doubt. However, the majority of people, including many doctors, are committed, at the moment, to the policy of giving all the health information—of many varieties—possible to all people from childhood to old age, with the hope that the more people know—or think they do—about how to live, the better and longer they will live. This movement has been gaining headway for half a generation with some encouraging and some discouraging consequences.

It is encouraging to believe that mankind in the mass is acquiring more health information, so that at least he has not the excuse of ignorance for not living his daily life to the best advantage.

There is no encouragement in the misinformation and propaganda that is being aggressively promoted and substituted for truth. The fact that patent medicine vendors last year reaped the largest harvest ($275,000,000) in history; that there are many more quack healers of more kinds than ever before, is discouraging and, in the opinion of some, is a logical consequence of the little learning that may be more dangerous than ignorance. And such learning!

Examination for a brief period of "news clippings," current periodical literature, books appearing so frequently about health, and the rise and fall of uplift organizations, is not conducive to enthusiasm for the popularization of health and medical knowledge.

The more or less astute promotion of dangerous propaganda, personal puffery, dogmatic solution of controversial subjects, emotional appeal, erratic values placed upon this or that by so and so, and other useless or dangerous doctrines, is bewildering in the extreme to people who are lacking in fundamental knowledge of the needs of the body in health and disease and who are furthermore inhibited by powerful traditions, folklore and superstitions.

Herein may be seen the explanation for the conservatism of physicians in the promotion of popular medical education for which they are so frequently criticized. All of them who are worth while regret the popular ignorance of man about man. Even the selfish ones know that the more intelligent the people, the greater the call for medical services and advice. They better than others realize that grains are rare in the mountains of chaff which constitute current popular "health education," and they fail to see much hope for improvement until the chaff blows away, when the valuable seed-bearing grain can be transplanted and nurtured unto the harvest.

The three H's are as essential to intelligent health promotion as are the proverbial three R's to general knowledge.

HYPERIRRITABILITY OF THE VAGUS NERVE IN INTRADERMIC INJECTIONS

Certain physiological responses accompanying intracutaneous injections in clinical practice have been attributed by some to stimulation of the autonomic nervous system, especially the vagus nerves; by others, to pain. However, these postulates have not been supported by any evidence worthy of the name. Following up their previous experimental results, Luithlen and Molitor * of the Vienna Pharmacological Institute now offer further evidence which seems to leave no doubt that intradermic injections increase the irritability of the vagus nerves when stimulated.

Using rabbits and cats, Luithlen and Molitor determined the threshold of direct electrical stimulation of the exposed vagus nerves before and after the intracutaneous injection of physiological salt solution. The index of vagus nerve stimulation was the well-known phenomenon of a fall of blood pressure. The production of an intradermic wheal always resulted in an appreciable, though variable, lowering of the threshold stimulus. That is, a weaker stimulus was required to produce the same fall of blood pressure, and also the same stimulus produced a greater fall of blood pressure. The same changes occurred in animals decerebrated in such a way as to leave the medullary centers intact, but were absent after destruction of the spinal cord, and section, or anesthetic blockage, of the sciatic nerves. Accordingly, therefore, the mechanism consisted of an increased reflex excitability of the vagi, caused apparently from pressure stimulation of the sensory endings in the skin. Irritation, or induction of pain, locally was not necessary, for the effects occurred after the injection of a nonirritant solution.

The fact that the hypersensitivity of the vagi in decerebrate animals was greater than in animals with the brain intact suggests a restraining influence of the brain on the phenomenon. It is also suggested that the vagal hypersensitivity may not be as marked under clinical conditions as under experimental conditions. Nevertheless, the occurrence of such a hypersensitivity is possible, and in specially sensitive individuals, it appears probable. Whether the results of vagal hypersensitivity could be serious cannot be said and it is quite apparent from most researches on the subject that only the vagus nerve of the parasympathetic nervous system has been considered. There is no good reason for excluding the sympathetic nervous system and stimulation of this system counteracts most of the effects of parasympathetic stimulation, so that the net result on physiological functions might be negligible. Apparently the subject needs further study.

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* Luithlen, F., and Molitor, H.: Arch. Exp. Path. Pharm., 1926, 111:246, "Pharmakologische Untersuchungen über die Wirkung intrakutaner Reize. II. Mitteilung: Die Uebererregbarkeit des Vagus als intrakutan angelöster Reflex."

ON LIMITING DRUG ADDICTION

A Few Efforts Well Enforced Better Than Many Prohibitions

(Continued from Page 786, June issue)

It is feasible to control, but impossible to effectively prohibit the consumption of narcotic drugs, alcohol or any other commodity of more or less extended usefulness, or which a substantial minority of people believe to be useful. We have been attempting to prohibit narcotics for generations, and we have not even kept them out of our most perfectly constructed and most carefully garrisoned prisons. Among "free" citizens who are watched over by thousands of tax collectors and their under-cover agents, the indulgence in drugs and other "prohibited" things and customs has increased largely because public opinion is so much exercised over the many prohibitions and the methods of bureaucratic prohibitors that the problem of the vice itself is being submerged. We are martyrizing a vice and its votaries.

Obviously one of the first essential steps in any intelligently conceived plan for limiting drug addiction is to draw a well-defined line between the employment of drugs by honorable, adequately educated physicians, as a constructive health measure, and their uncontrolled use for purely personal reasons. Regulations should be sharply different in purpose and method on the two sides of this line.

A national plan should concern itself chiefly with intelligent national legislation and effective law enforcement governing the importation of drugs; their manufacture; interstate distribution; the immigration of addicts and potential problem citizens; and participation in promising international movements. If these duties are effectively discharged, the more limited features of the narcotic problem and all efforts to salvage individual patients become a state problem made distinctive for each state by laws, customs, and local peculiarities in the problem.

The production of habit-forming drugs by growth, manufacture or importation is a national problem as effectively solvable as is any other national problem when approached intelligently. It is no more international than immigration. It is quite as much the business of a nation to prohibit or prescribe the rules governing admission of drugs as it is to say how many and what sort of people, peonies, or pineapples may be admitted, and under what conditions. Conversely, what is grown, manufactured, and distributed within a nation's jurisdiction also is primarily a matter for self-determination. Diplomatic efforts calculated to produce concerted action of nations in decreasing narcotics are worth while and should be encouraged, but spectacular "movements" and activities calculated to make the narcotic problem an international one are largely theoretical, premature and, as now promoted, distinctly harmful for several important reasons. Until we show that we can effectively guard the borders of our country against the illegal importation of narcotics, jewels, cabbages, and kings, we promote curious ethics by insisting that other nations, as proud as our own, help us regulate the habits of our citizens by abolishing vast enterprises which may be honorable in the minds of their hundreds of millions of citizens. During my many years of residence in the lands of the cannabis, poppy, and the coco, I have often heard leaders in the affairs of their nations insist that, if the United States would guard her borders against narcotics as effectively as she does against some other commodities, Americans would not need to insist that other nations make financial sacrifices for the welfare of (to them) foreigners. Producers of the poppy, hashish, and coco, claim, with some truth, that it is not so much the use of their crude drugs by their traditional methods that endangers their people as it is the concentrated extracts from these products and new-fangled methods of use that are shipped back to them from Europe and the United States, that is promoting a new and serious element into the vices of their people. However, when considered from the point of view of our own welfare, ballyhoo promotion of such slogans as "Narcotics a World Problem"; "Stop the Vice at Its Source"; "Control Supply by Controlling Production"—thus dispersing interest and effort—constitutes a danger to progress in limiting a serious vice.

An element of growing importance in the production of habit-forming drugs, in our own country, is their manufacture by purifying, synthetizing, combining and "assembling" them by constantly improving scientific methods. This is both a national and state problem easily solvable by reasonable, honestly applied intelligence. For the most part the great pharmaceutical producers conduct their enterprises upon a strikingly high plane of ethics and co-operation with physicians and government in promoting good and limiting evils. However, there are too many scalawag "producers," particularly of the "assembling" species, who deal chiefly in mixtures and patent medicines and cure-alls, whom it will require enlightened and sustained public opinion, as well as fearless legislators and law-enforcement bodies, to effectively regulate.

Control of production of narcotic drugs, compounds and mixtures, is essentially a legislative and law-enforcement responsibility. Its solution requires no extraordinary intelligence, but it does require a higher order of character than is usually exemplified in matters of public welfare, of which drug addiction is but one of many. It is perhaps less honestly handled than other public problems—except control (?) of the use of alcohols—because of the incomparable profits available both to government and to narcotic bootleggers, and because of a certain type of political power inherent in the situation.

The difficulties in controlling production are somewhat increased by the large and increasing usefulness of narcotics in the relief of suffering and in the treatment of diseases of man and animals. This fact must be recognized and provided for as well as the storage of huge quantities of these drugs against possible national emergencies of such a nature as to interfere with their importation.

National and interstate transportation and distribution of narcotics are matters to be handled under national laws and regulations by agents of the federal government. Control of distribution within a state ought to be exclusively a problem of the individual state. The sharing of this responsibility by federal and state governments, now in vogue, furnishes too many opportunities for "buck passing," and provides too many loopholes through which criminals and traffickers in narcotics easily escape. Every wholesale house, pharmacy, hospital, clinic, health center, institution or other depository or distributor of narcotics should be legalized, licensed, and controlled exclusively by the state. The laws should provide adequate, unequivocal penalties; licenses should be granted only under strict requirements, including ample bonds and suitable provisions for revocation; and all matters of administrative supervision should be definitely a duty of the licensing body who should have ample legal authority with sufficient discretionary power to make prompt, intelligent action under all conditions possible. Licensing and control over distributors of narcotics should be extended to apply to all preparations containing in any quantity habit-forming drugs of whatever character.

Laws and law enforcement pertaining to illegal distribution should be strengthened. Peddling, bootlegging, or any other form of illegal trafficking or possession should be a penal offense punishable by mandatory prison sentences. These criminals are the most depraved and lowest of any known, and the doctor who prostitutes his profession by the unwarranted use of narcotics is the lowest of them. Their punishments should give them long periods of enforced harmlessness whenever they are found guilty. This is not being generally done, and so long as the judges and attachés of some of our courts are the political creatures they are, it won't be done. Laws governing the licensure and supervision of physicians who are authorized to prescribe and use narcotics, are sadly in need of extensive revision. Regulation of those licensed to treat the sick should be taken out of the hands of tax collectors and be placed exclusively in the hands of the body charged with the responsibility of licensing physicians and disciplining them when necessary. Leaders of thought in foreign countries that we blame for producing narcotics say that they would be more convinced of our altruistic purposes if our country

treated the situation more as a human welfare problem and less as the huge money-making one it now is. Our laws and regulations are designed and enforced to produce income, which they do to an extent which places our government in the disgraceful position of a trafficker in narcotics for revenue. In a word, our methods are strong for profits, but are weak in laws and regulations calculated to improve health and welfare.

More intelligent care of unstable citizens of many varieties, from whom addicts are largely recruited, would help materially in limiting the narcotic evil. This problem is too extensive and involved to discuss here, further than to say that to many problem citizens narcotics are a welcome alternative to our standardized methods of mishandling them.

We often start potential addicts early in life to looking for some "way out" by promoting what the children themselves call "nut classes" in our public schools, by which we set our problem children aside and brand them. We keep this segregating line taut throughout life in practically everything we do for them. Experience with other biologic problems has taught us to recognize segregation as a last resort measure, and not one of election, to be promoted and acclaimed. It is certain that we are not now successfully handling our problem citizens of any age, and that by our failures we are providing the (to them) sufficient excuse to follow some other trail, of which "poppy dreams" is one.

"Education" has come to be hailed as the fashionable preventive panacea for most of the failings and infirmities of mankind, often overlooking the plain facts that a surprising percentage of those engaged in practices condemned by society are among the so-called educated classes. There is a growing doubt in the minds of students of the narcotic situation of the efficacy of "education" as a preventive. There are no convincing statistics, but such as are available do not indicate that the type of education we are giving our young people has much, if any, influence in limiting addiction. It is not difficult to place quite a different interpretation upon such data as are available. Certainly all people of all ages should be kept warned of the dangers and consequences of narcotic indulgence, but that a more complete knowledge of the drugs and their actions will decrease the number who seek the temporary comfort these drugs offer, is open to serious doubt. The committee of the American Medical Association now engaged in a study of the narcotic situation should give this question serious attention before the physicians of the United States commit themselves as to the quality and amount of education necessary to be most effective against the narcotic evil.

Better control of the sale of what may be termed appetizers would be materially helpful in limiting drug addiction. Appetizers include any and all preparations that contain habit-forming drugs in any amount as well as many preparations calculated to relieve pain, produce sleep or induce comfort. That habitual use of these appetizers is an important first step toward more serious drug addiction is supported by convincing evidence. The ideal solution of this situation may be frankly admitted to be impossible of accomplishment in either a national or state plan, for reasons that need not be further elaborated. Consequently each state, in laying plans for improvement in its narcotic situation, should aim as high as practicable and fight for all it can get.

Alleged "cures," not only for drug addiction but for other infirmities, are important contributing factors to drug addiction. It is a duty of the state to limit all "cures" and "hopeful treatments" to those having ample scientific endorsement. To do this does not require more knowledge, but it does require adequate legislation and more character among law-enforcing agents.

To offer hope of permanent betterment every plan must recognize that narcotics are essential, and that it is their abuse and not their prohibition that should concern society. We would move forward faster by recognizing the reactions of various personalities to drugs. There are probably more people in the world who habitually use narcotics without apparent material damage than there are citizens in the United States. Vast concourses of people in certain countries use their drugs very much as other nationals do their alcohol and tobacco, as food substitutes and strengthening sedatives throughout their lives, without indulging in excesses. Whatever one may believe about the consequences of their customs to such people, we will all admit that, for the majority of our citizens, such practices would be calamitous.

(End)

THE HEALTH DOSSIER

Every man, woman and child in every community should have his health recorded in the files of his family physician.—WENDELL C. PHILLIPS.

Every true physician echoes this sentiment in his heart, but what are we doing about it? Very little.

The average citizen is brought into the world by one doctor, or some incompetent midwife, cared for through infancy by another doctor, clinic, health center, or likely several of them plus a few specialists.

During school years the child is "educated," examined, inspected, diagnosed and prescribed for by a flock of teachers, nurses, school clinics, health centers, magazines, Sunday supplements, uplift organizations and what not conducted in large measure by the inadequately educated and not infrequently by anti-medicalists. If the youngster goes to college he is picked up as something new by other groups of doctors, hygienists, psychologists, social workers and what not, each again starting another health dossier.

If the adolescent does not go to college, he goes from one health adviser to another and on through life without ever having his health assays brought together in such a manner as to be most useful.

It is not an infrequent experience of doctors to have an adult patient say to them that their greatest regret at having had measles, diphtheria, or what not, was their having to repeat the story so many times to so many people.

Of course it is not feasible, but what a help it would be to patients and doctors if every individual could have a written health dossier started at birth and kept up to date by additions made by all who participate in shaping his health. There are some such records and they constitute diaries that tell much to the patient and more to each doctor who serves the individual.

Ever-growing demands on the service of physicians for charity work are unfair to the profession economically. It takes seven to ten years and $10,000 of somebody's money to educate the doctor for his life work. Then his domain is continually encroached on by quacks and fakirs on one hand, and by "untrained professional uplifters" on the other. The latter insist on his giving his services for nothing to people who don't need such help, and who would be a lot better off morally and spiritually without it.—L. L. Bigelow, International Journal of Surgery.

It is a fairly recognized fact that diseases of old age require as much special attention as do diseases of childhood. The senile organism has peculiarities which demand treatment different from that used in treating diseases at maturity. More and more it has been recognized that geriatrics (diseases of old age) has a special place in medicine, and we note that medical journals throughout the world are giving attention to this particular study.—Malford W. Thewlis, M. D. (M. R. of Rev.).

The civilization of a country consists in the quality of life that is lived there, and this quality shows plainest in the things that people choose to talk about when they talk together, and in the way they choose to talk about them.—A. J. Nock, Harpers' Magazine.

- *The* MONTH *with the* EDITOR -

Notes, reflections, comment upon medical and health news in both the scientific and public press, briefs of sorts from here, there and everywhere.

Those physicians, if there are any such, who have endorsed the Sheppard-Towner Act will find much of interest in W. C. Woodward's analysis of this paternalistic fad in the Amer. Med. Assn. Bull., May, 1926.

The country physician can handle 80 or 90 per cent of his practice with self-respect; his city brother can do no more. And as for the intellectual barrenness of country practice, the resourcefulness that it calls for, the responsibilities that it demands, the problems that must be tackled, furnish to an intelligent man a sort of stimulation that is satisfying and that brings out the best that there is in him.—William Allen Pusey, Journal A. M. A., May 15, 1926.

A birth control specialist from Boston recently told the Commonwealth Club that the majority of doctors endorsed his propaganda!

It is probably true that some doctors are helping birth controllers make "motherhood voluntary and discriminate."

Does not the accuracy of the crusader's statement that the "installation cost" of a baby was between $200 and $300, depend upon what he means by "installation"?

Last year the news wires carried the story around the world that a million of these little innocents were "installed" in the bottom of a river in one country.

Physicians who are interested in industrial medicine and persons who help insurance companies—state and private—pay the costs of care of their beneficiaries by contributing to the support of hospitals that render these services at less than cost will find much to meditate over in an article by Editor Rector, Nation's Health, May, 1926, page 317.

CALIFORNIA AND WESTERN MEDICINE frequently has called attention to this peculiar form of "charity," (?) which is widely prevalent in California.

Exhibitors at C. M. A. Sessions—The C. M. A. has for some years carried out a policy of permitting only those who advertise in CALIFORNIA AND WESTERN MEDICINE to exhibit at the annual sessions of the Association. This policy is very popular with advertisers, who rightly interpret it as a worthwhile return for their support of the Association and its publication.

It is helpful to doctors because they meet at every booth representatives of ethical dealers whose products and methods have been carefully looked into and accepted by their own organization.

Visitors gain helpful ideas of the materials and methods endorsed by a great medical organization, some of which lead to practical results of value to the public health and to legitimate business interests.

Under this policy the exhibits at the 1926 session were particularly attractive, educational, and useful. The exhibitors felt at home with those whose patronage they invite. and the spirit about the exhibits was friendly and mutually helpful.

Advertisers who took advantage of this privilege were:

Alexander Sanitarium (occupational therapy work of patients); Bischoff's Surgical House; Calso Water Company; Certified Laboratory Products; Cutter Laboratory; Robert A. Fischer; Hanovia Chemical and Manufacturing Company; C. H. Hittenberger Company; Horlick's Malted Milk Corporation; Laboratory Products Company; Medical Protective Company; Mellin's Food Company; Merrell-Soule Company; Napa Rock Mineral Water Company; Physio-Therapy Manufacturing Company; R. L. Scherer and Company; Shasta Water Company; Spindler & Sauppe for E. Leitz; and Travers Surgical Company.

This policy of permitting advertisers only to exhibit at C. M. A. sessions will be continued, and under it exhibits at the 1927 session at the Los Angeles Biltmore should be even more successful than heretofore.

Preparations for the 1927 session are already under way, and advertiser-exhibitors may make their arrangements as to space and other details with Dr. William Duffield, Auditorium Building, Los Angeles.

God bless Uncle Joe Cannon, who so far has avoided the pitfalls of many other near centenarians by not telling the world how to live long. Why is it that highly respected citizens whose ears ring with the deserved plaudits of mankind for outstanding service in some phase of industry get slobbery about health as they reach the age of senescence?

The Opticians' League of New York announce in advertisements that they are organized "to support constructively the dispensing policy and ethical purposes of the oculist."

Henry Ford gets front page black type for saying that doctors are "beginning to find out that disease springs from food." Sic!

"Every patient is a private patient." "A patient is a patient, not an exhibit." "Self-respect forms a part of a patient's health." This and more sayeth Henry Ford. Platitudes, yes. Old stuff, yes; but maybe it will help to have them again as the first-page stories they now are.

We continue to civilize primitive peoples. The Charleston is replacing the hulahula in Hawaii.—Pittsburgh Chronicle Telegraph.

The word "participation" more exactly expresses the physician's point of view of harmony of action among the trinity of workers in public health. It comes from two Latin terms, pars—part, and capere—to take; therefore, to take part. Physicians are ready to take their part in any phase of public health work. Their peculiar field is technical work for which they alone are qualified, both legally and scientifically. Their relation to other groups in anti-tuberculosis movements, anti-diphtheria campaigns, and similar activities is expressed by the word "participation" more happily than by the word "co-operation."—New York State Med. Journ., May 1, 1926.

Grandma Pash says there's too much tomfoolery mixed up in th' raisin' o' children nowadays. She ought t' know; she's lost eleven.—Abe Martin.

During the last few years a great deal has been written for the general public about the value of health and how to keep well. Such information is not confined to special health publications, but is quite general in the daily press. There is hardly a big newspaper today that does not have its health editor and health column, in which it undertakes to give more or less information to its readers on how to avoid illness, or what to do to regain strength and well-being.—The Nation's Health, May 15, 1926.

About Books—Among the many pleasures of growing old in medicine are the privileges and opportunities to reflect and meditate over one's trials, tribulations, mistakes and successes encountered in grim battles on the

outposts of health which make up a large part of every physician's life.

When one who has these privileges takes the opportunity to enrich his meditations and dreams, if you please, by perusing the biographies of great physicians, the autumn of life may be made happy indeed. But such reading is liable to emphasize regrets that strenuous student days and the necessity of making a livelihood prevented one's acquiring the valuable information stored away in the annals of medical history at a time of life when its usefulness might have been applied.

Exceedingly well-written biographies of physicians are being put out in considerable numbers. We have called special attention to some of them, as, for example, "The Gold-Headed Cane." "Pediatrics of the Past" by John Ruhräh (Paul Hoeber, Inc.), is a particularly fascinating story that should be read by every physician and particularly those who include children among their patients. H. L. Mencken in reviewing this book for the Baltimore "Evening Sun" says of it: "What could be more unpromising that the subject matter of this tall and stately book; the dreadful bellyaches of infants in arms, their forbidding spasms and bellowings, their gruesome and often losing struggles with worms, the occult mysteries of their feeding? Yet Doctor Ruhräh somehow manages to make it fascinating, and even charming. Himself an active practitioner upon the young, he has interested himself for years in the ideas and doings of his predecessors in that art, especially those of centuries ago, and here he gathers together some of the fruits of his long inquiry, with illuminating and often sardonic comments. There are extracts from the primeval pediatricians, sometimes long ones, and there are historical and professional notes upon their lives and times. It is a curiously interesting book, and there is a lot of strange stuff in it."

Dr. Fielding H. Garrison has given us another charming, delightful, useful little book, "The Principles of Anatomic Illustrations Before Vesalius" (Paul B. Hoeber, Inc.). If medical students were made familiar with this illustrated inquiry into the rationale of artistic anatomy early in their careers, how much more appealing that "dry subject" of medicine would become! Even the physician who graduated years ago will forget some of the one-time disagreeable features connected with the study of anatomy in the perusal of this story, and all but the unusually wise will also learn something.

Parasitic Protozoa of Man. By Charles F. Craig. Lippincott, 1926.

With his experiences and the facilities at his command, Craig should have written a more useful book on this important subject. There is much to commend in it, and its careful perusal should be helpful to physicians who do not find time to follow the voluminous discussions that make up the literature of diseases caused by protozoa. In more than one place the author handles the published conclusions of other workers as the Georgia woman accused General Sherman of handling fire—carelessly. Nonmedically educated protozoölogists who during recent years have made such valiant attempts to make a disease—amebiasis, for example—fit their conception of what a parasite should do, rather than the other way around, will gain much needed comfort from the opinions of the distinguished author of this book.

Some reviewers have used their literary lancets rather vigorously on Voronoff's book, "Rejuvenation by Grafting." To hold his book up alongside the acres of newspaper space this man has had, does make a rather pathetic picture. Newspaper notoriety has finished many another shadow boxer, but still they come.

Van Buren Thorne (New York Times) in his review of Voronoff's book justly excoriates the author for accepting credit for discoveries already made and largely discarded by an American surgeon years before Voronoff caught the fancy of newspaper reporters.

Voronoff did not even mention Frank Lydston in his earlier book "Life," and in his latest book he only mentions Lydston casually, and misspells his name at that.

My Wet Creed: I am an abstainer. I am an abstainer now and I was an abstainer before the Volstead Act was passed. But there are some things I deny the right of the government to govern me. I deny the government the right to say whom I shall marry. I deny it the right to say how many children I shall have. And I deny it the right to come to my dinner table, invading my house, and say what I shall drink or what I shall eat. Otherwise I would be a fool or a slave.—Capt. William H. Stayton, formerly president of the Navy League of America.

It is said that 150,000 boys will graduate from American high schools this summer. They will have 300,000 hands not one of which will grip a plow-handle, an ax helve, or an engine throttle.—Houston Post-Dispatch.

The death the other day of Martin A. Delaney, physical director of the Chicago Athletic Club, after a short sprint for a street-car, renews attention to the peril known as the athletic heart. Mr. Delaney was 55. William Blaikie, who lectured on "How to Get Strong," and Walter Camp, teacher of correct living, also passed away suddenly at what should have been the very prime of life. Not how to get strong, but how to be normal, temperate in physical habit and careful, is the lesson most of us need to learn. There is danger in overdoing.—San Francisco Examiner.

Thus again we see sound conclusions slowly catching up with a foolish fad.

Whatever other reactions one may get from reading Isa Glenn's "Heat" (Knopf) the injustice of her implications and conclusions must take first place in the minds of those long resident in the Pearl of the Orient.

There were, and are, characters in Manila as weak and vicious as any Miss Glenn describes, but to intimate that they are representative of either Americans or Filipinos is simply atrocious. "Going native" should not be limited to Manila. Many of that type who never leave home shores "go native" quite effectively.

This author's estimate of Filipino character is so little representative and her poisoned darts are so clumsily thrown as to suggest to those experienced in tropical matters—physicians in particular—a source of "Heat" not contemplated by the author.

The one important message in the book is a socio-health one, but it is so obscured as to be unutilizable except to the initiated, and they don't need it. It is unfortunate that reviewers like Mencken and others see in "Heat" an unexaggerated story of the lives of Americans in the Philippines.

The Sixth Edition of "Diagnostic Standards" in tuberculosis is issued by the National Tuberculosis Association. Physicians who like their information in tabloid form; who do not keep up with medical progress; or who need a brief reminder of fundamental points in the diagnosis of this important disease may find this little pamphlet useful. Copies may be had by addressing the state or national tuberculosis association.

Even busy doctors may find time to read "Charcot Centennial Anniversary" number of the Bulletin of the New York Academy of Medicine.

The one hundredth anniversary of the birth (November 25, 1825) of this "greatest physician of the nineteenth century" has been made the occasion around the world for a review of his influence on medicine.

"To read the countless tributes from all lands following his death and during the present year," says F. H. Garrison, "is to realize that Charcot was not only the greatest physician of France, but, in relation to his period, of the whole world."

MEDICAL ECONOMICS AND PUBLIC HEALTH

All licensed physicians and surgeons of the city of Los Angeles have been made deputy public health officers for the purpose of readmission to schools of pupils suffering from nonquarantinable contagious diseases. A small step, but one in the right direction.

In at least one country every licensed doctor of medicine is a deputy public health officer which, according to the report of an investigator of the Rockefeller Foundation, explains the leadership of that country in health progress.

If a license to practice medicine and surgery automatically carried with it appointment as a deputy public health officer of the state, county and municipality in which the physician practiced, with the legal duties and responsibility of such position, might it not lead to better public health service, personal health service and insure co-ordinated action between groups of doctors now too often not manifest?

"MORE DISGRACEFUL THAN UNFORTUNATE." Under this headline the New York Times says:

"No community has a right to have more than a few imported cases of typhoid fever or smallpox, and particularly is it disgraceful for any town pretending to be civilized to have smallpox prevalent. Yet there has been not a little of it in Florida this winter, and a good deal more in California, and further north on the Pacific Coast.

"In Florida the victims have been chiefly negroes, and they, in some parts of the South, do present a difficult problem. For California, Oregon, and Washington, however, to have allowed an unvaccinated generation to grow up proves both original neglect by the health authorities and their failure to take the epidemic vigorously in hand as soon as the first cases appeared.

"They are satisfactorily active now, and are vaccinating people by the thousands, with the natural result that the affliction is dying out. That it was allowed to go so far indicates either the presence in considerable numbers of the strange people who deny the efficacy of vaccination or assert its harmfulness, or else the making of the always disastrous mistake of concealing a contagious disease for what are imagined to be business reasons."

Statements like this and others to the same end now being widely published ought to interest California Chambers of Commerce quite as much as it does physicians.

Much of the expensive advertising for tourists and new residents for this vast state is counterbalanced by our stupid handling of health problems.

What is the result of the school health program as it exists today? Students in the upper grades and even on admission to college show as bad a condition of physical unfitness as students in the lower grades. Improvement in health habits have not kept pace with the complexities of living, so that there has been practically no improvement in the health habits of children during the past fifty years. Nor can improvement be brought about by simply training the intellect or securing a temporary change of health habits by rewards, or by inducing children to follow a fixed number of health rules on the false assurance that by so doing they can become well and strong.

No program to achieve physical fitness is complete unless it is safeguarded against the tendency, on one hand, to assume that because some particular method brings results in certain instances it offers a panacea for all the ills involved and, on the other hand, a readiness to use some blanket method—or, to change the figure, to load the gun with a charge which includes all known remedies and means of improvement.—William R. P. Emerson, Amer. Journ. Med. Sci.

One of the general sessions of the American Public Health Association held last October was devoted to discussion of the question, "Shall health officers be licensed?" W. A. Evans of Chicago in opening the discussion said that Illinois has "more than 2000 health officers who have had no sort of academic training for the positions they occupy. They are farmers, merchants, hack drivers, undertakers—everything except trained health officers. Similar conditions, though in different degree, are found in most of the states."

Evans proposed to remedy this situation by "the organization of a public health profession, with the spirit of a profession and making use of the same kind of licensing power as has been employed with other professions."

This suggestion to create a new profession independent of the profession of medicine brought this encouraging message from J. C. Geiger. "I do not think you can make a public health administrator either through the medium of a college or through the medium of a license. Some of the professors of public health administration I have known have never handled a health department.

"The question of licensing doctors with public health training or experience as public health administrators would appear to be a somewhat unnecessary procedure, as doctors are already licensed. Some physicians who have moved from state to state have several licenses. Likewise nurses are licensed. Who else are you going to license? Perhaps the sanitary engineers. . . . Licensing a public health official will not make an administrative officer and neither will the best of education make administrative officers. Unfortunately the best administrative officers are born and not made, and it is only experience that makes some of us "practical" administrative officers."

John Sundwall added: "Licensing of public health workers and administrators at present will prove to be a complicated and difficult process. In fact I am not at all clear as to how this can be done. . . . I believe we are all agreed that it is highly desirable for the public health administrator to be trained in medicine as preliminary to his training in public health. This is especially desirable for the health office of small communities where he must perform many functions."

Concerning the latest proposal of the bureaucratic urge, Senator Edwards the other day said: "Little by little the National Government has been encroaching upon state rights. It is time to call a halt, and defeat of the Curtis-Reed Bill is a good beginning. All students, regardless of their intelligence or ability, should not be compelled to lockstep behind a federal educational autocrat who could not possibly be in a position to appreciate highly individualized and specialized demands of forty-eight different states."

The country needs more democracy and less bureaucracy.—Ohio State Med. Journ., May, 1926.

An Illinois optometrist publicly announces that brown eyes are better than blue ones because they last longer. There is absolutely no evidence to prove this statement. The optometrists very glibly pass out to the public a good many opinions concerning eyes and their care that are worthless, and some of the advice is positively detrimental to the best interest of the public. However, this is one way to get the ear of the public, and it is propaganda that leads many school boards to appoint opticians, jewelers or plain spectacle peddlers to examine the eyes of school children. Verily the medical profession has been asleep or it would have made a strenuous effort to offset a good deal of the vicious teaching of medical pretenders.—Journ. Indiana M. A., May 15, 1926.

Judged from the number of marked clippings we have received, doctors must have gotten quite a "kick" out of the attack on "calories" made recently through the public press by a "nutrition expert," if you know what we mean.

"Five out of every six persons who claim any knowledge of nutrition are undernourishing themselves by counting calories" believes this expert, who also advises "for your own salvation stop counting calories."

The practitioner of any specialty in medicine would almost invariably be a better specialist had he served a few years' apprenticeship at general practice. Too often he has associated himself with his specialty at once on completing his hospital internship and, therefore, while an adept in his own field, he is apt, with his narrow experience, to fail sadly in grasping some of the broader problems of the cases upon which he is called in to give advice.—Med. Soc. New Jersey, April, 1926.

Compulsory Health Insurance in England—Although compulsory health insurance has been in force for more than fifteen million of the population of England since July, 1912, the subject is still as bitterly controversial in that country as it was when it was started nearly fourteen years ago. A royal commission of thirteen members appointed in 1924 to study the whole question has recently made its report; reports, rather, because there is a majority report signed by seven members, by two other members with certain "reservations," and a minority report signed by four members.

Langley Porter has supplied us with clippings from the "London Times" from which the facts here presented have been taken. Apparently the only thing the Commission were unanimous in was that "insurance committees" should be abolished and their duties transferred to the "local authorities." The majority report states: "The members have no reason to think that there now exists any considerable body of opinion adverse to the principle of National Health Insurance. In contrast to the paucity of evidence directed against the general principles of the present scheme, a large volume of evidence in its favor was received from many different quarters, and this testified to the advantages in health and social security which had been derived under it." Nevertheless they recommend 122 changes in the law and its administration. One of these recommendations is for an extension of the law to cover several millions now exempt from its compulsory features.

Regarding medical care the majority report says:

"While it has been inevitable hitherto that medical benefit should be confined to a general practitioner service, this limitation has detracted from the value of the benefit and its removal is urgently desirable.

"The additional benefits of a treatment character have been, on the whole, successful and appreciated, though in varying degree, but they suffer from the following defects inherent in the conditions under which they are provided:

"(a) They are only available for those insured persons who are members of societies having surpluses at valuation, and only for those members who fulfil certain qualifying conditions, and consequently large classes of insured persons are debarred from participating in these valuable services.

"(b) Even among the societies giving a particular type of treatment benefit there is no uniformity in the content of the benefit, with the result that there is widespread confusion in the minds of the insured persons as to what precisely their rights are.

"(c) The arrangements made between societies and professional bodies are wanting in authority and uniformity, and in some cases are accompanied by undesirable conditions."

It is recommended that as soon as funds are available the scope of maternity benefit should be expanded to cover medical and midwifery services in addition to a cash payment; that the service element should then be administered by the local health authorities and be co-ordinated with the other local medical services, and that a cash element should be retained and be administered in connection with other cash benefits.

The extensions of statutory benefits to be made as and when funds are available to meet the cost should, the majority report suggests, be placed in the following order of priority:

(a) Extension of the scope of medical benefit.

(b) The provision of allowances in respect of dependents of insured persons in receipt of sickness or disablement benefit.

(c) Improved provision at the time of pregnancy and childbirth for insured women and the wives of insured men.

(d) The provision of dental treatment as a normal benefit.

The extension of the scope of medical benefit should take the form of the provision of:

(a) Expert medical advice and treatment for persons who can travel to meet the specialist.

(b) Expert advice for persons who are unable to travel.

(c) Laboratory services.

In-patient treatment in hospitals, major operations in the home, maternity services and dental service should not be included at present.

Other recommendations contained in the majority report include:

"Provision in the scheme should be made for the closest co-operation between the general practitioners and the specialists, particularly for the exchange of information as to cases and for the giving of definite guidance to the general practitioner as to both diagnosis and treatment. Any practitioner possessing the requisite qualifications should be entitled to take part in the work, and the *decision as to whether particular practitioners possess these qualifications should lie in the hands of a mixed lay and medical committee for each area.*"

"With regard to the remuneration and control of insurance practitioners, it is suggested that the capitation method of remuneration be continued as the normal method, but that the attendance method be retained as an alternative for adoption in particular areas when so desired."

The "reservations" of particular significance to physicians that two members made in signing the majority report are expressed thus:

"The problem, which should not be impracticable of solution, is to devise a method whereby society, while guaranteeing to every individual the opportunity of a reasonably complete life, shall yet be able to protect itself against the infusion of elements calculated to be a source of weakness. So far from the conjoint attainment of these two ends being impracticable, it may be suggested that the first and more visionary is possible of achievement only on condition that the second and less popular is in some measure realized."

The majority report calls attention to the inadequacy of preventive medicine service. They believe:

"That it is neither necessary nor proper to confine the developments of the National Health Insurance Scheme to such as can be paid for within the present financial resources of the scheme; that the local administration of additional benefits could be more satisfactorily carried out by the local authorities responsible for other health services than by approved societies; that the failure hitherto to give effect to the provisions of Section 107 of the Act as to inquiries into excessive sickness has been largely due to the fact that the approved society system is not adapted to the purpose; and that the system is a hindrance to the development of a complete public health policy."

They maintain "that there is no financial loss due to the overlapping of the various health services at present in operation, and that the money available will be increased when these services are unified and controlled under the local authority; that as the provision of a complete medical and treatment service would tend to prevent sickness and to effect a speedier and more complete cure of illness, it would result in economy." In a long editorial discussion of the report the "Times" says: "This is clearly not the moment to add to the almost crippling burden of the social services on industry, with its inevitable reaction on the available amount of employment in the country, and consequently on the health and happiness of the insured. The extent of that burden is clearly shown in the Commission's report. The United Kingdom stands already far above all other countries which are its trade competitors in the sum total which it provides for purposes of social relief and assistance. The cost of Poor Law, Workmen's Compensation, Old Age Pensions, Health Insurance, and Unemployment Insurance is 78s. 6d. per head of the total population, or more than twice what it is in Germany, and respectively six and twenty-five times what it is in France and Italy. The present appropriation for National Health Insurance is £39,000,000 a year, for the Contributory Pensions Scheme £26,000,000, and for Unemployment Insurance about £50,000,000—a total of £115,000,000, of which the state finds £24,000,000. If to this is added the cost of public education, expenditure under the Public Health Acts, noncontributory Old Age Pensions, Housing of the Working Classes, Poor Law Relief, and the Workmen's Compensation Act, the annual charge for social services which the country is meeting amounts to more than £300,000,000."

The editorial closes with this significant statement: "It

certainly seems reasonable to assume that an economy of expenditure and of effort might be effected by surveying the problem of social insurance *as a whole* instead of sectionally. On the question of health reform as standing by itself, it is well said in the reservation that there are grounds for believing that expenditure on health, unless primarily directed to the removal of the causes of ill health, may tend to occasion a further increase in such expenditure. It is the business of the state to care for the health of the community, and the duty of the medical profession to regard the health and recovery of the individual patient as the supreme consideration. But it is true that 'postponement of the event of death' may mean, and in many cases must mean, an increase in the number of cases requiring medical attention, that the prevention of ill health is even more important than its cure, and that for the establishment of a healthy community the sanitary side may be more efficacious than the medical side of medical science."

Present schemes of health "chores," "teaching health," and so forth, are ill adapted to real needs and misleading in the impressions they actually make upon children. Intellectual knowledge has little or no permanent effects on health habits.

The work of the school physician usually amounts to a mere "screening" out of a certain number of "deviations from the normal" without getting at causes or removing them.

"Blanket," "shotgun" and panacea methods lead to waste of time, energy and funds much needed for constructive health work which takes account of actual causes and individual needs. — William R. P. Emerson, Am. J. M. Sc.

Another valuable agency was enlisted in the never-ending search for the cause and a cure for the common cold, one of the greatest scourges of humanity, when Francis P. Garvan, president of the Chemical Foundation, offered to finance the undertaking by the American Drug Manufacturers' Association.

Reporting good progress in the fight to establish the chemical industry in this country in competition with Germany in the fields which Germany formerly controlled, Mr. Garvan branched into the subject of the common cold, which he said was one of the greatest causes of mortality and economic loss, in spite of the fact that it is usually regarded as of slight importance. He said:

"Sitting at my desk, it seems to me as if a new industry was born in this country every minute, fathered by chemistry and mothered by research. But recently, in my pride and boasting of our achievements, the curtain lifted over something undone, a problem I have brought to you and which has, I might almost say, overwhelmed me in its importance and in the little that has been done with it. This is the subject of the common cold.

"When you come to consider that all through our lives we go on suffering from a cold and pneumonia, from mastoiditis and the sinus troubles, and a thousand and one things which develop out of the common cold, to say nothing of the inherent weakening of the physical structure by these repeated assaults upon ourselves, but more particularly upon our children and our women, you realize the gravity of the common cold.

"Do you realize that ten days of every man's, woman's, and child's activity a year, on the average, are lost throughout this country? It amounts to more than a million years of activity annually. The loss to agriculture, industry and all business activities is some 700,000 years of working time through the incapacitation of 15,000,000 workers in this country."

The American Drug Manufacturers' Association voted to co-operate with the Chemical Foundation in seeking a method to check the ravages of colds.

Only one person in six bitten by a rabid animal will develop "hydrophobia," but once the symptoms appear the mortality is 100 per cent. It is impossible to determine which one of the six is going to develop the disease; therefore it is the part of wisdom to start anti-rabic treatment as early as possible, as the malady may come on as early as fourteen days after infection or as late as fourteen months afterward.—Ohio Health News.

The striking conquests of preventive medicine in the fields of smallpox, typhoid fever, and the diseases due to animal parasites tend to breed a false confidence and we are tempted to rest on our laurels, proudly recounting our glorious achievements. While we can speak of concrete accomplishments in the control of diphtheria or the eradication of hookworm disease, we are content to prate vaguely of "hygienic living" and low protein intake for the prevention of arteriosclerosis, nephritis, arthritis, or hypertension.—Boston M. and S. J., April 22, 1926.

The output of scientific books and articles is enormous. It has been estimated that there are today in the field of medicine alone 1500 journals which print about 100,000 papers annually. The "Index Medicus" with its 1000 pages reports about 40,000 articles each year. The Surgeon-General's library in Washington has catalogued since 1880, 1,400,000 articles and 330,000 book titles. The task of sifting, listing, indexing, and in many cases making brief abstracts of scientific articles has become almost overwhelming. It is reported that 129 bibliographical reviews and 153 serial publications print abstracts or summaries.—Annual Report, Rockefeller Foundation.

The wholesale resignation of the members of the department of dermatology of the Vanderbilt clinic and the College of Physicians and Surgeons of Columbia University, etc., etc., as a protest against the appointment of a "laboratory man" head of the department has caused widespread comment among physicians and wide publicity in the daily press.

Several of our readers have furnished clippings and invited comment. The kernel of the situation is a fault inherent in *mergers* whether of canners or clinics, hotels or hospitals. Mergers destroy individuality and call for more or less arbitrary dictatorship. When they grow too large and prosperous they crush themselves. The fracas in question is only a pin prick to the ruthlessness that must prevail if the supermerger of medical educational and medical practice corporations now being built around Columbia is to endure, even until the next innovation is popularized.

Brown University announces that hereafter undergraduates will be examined not only as to their lungs, hearts, livers, and eyes by physicians, but also as to their worries, doubts, despairs, loves, and hates by trained psychologists.

In announcing this ancient pedagogical canon, *mens sana in corpore sano*, President W. H. P. Faunce stated that the assumption of this responsibility by "the best men in the medical profession" was expected to save unbalanced Brown students from the tender mercies of the psychologist, from whose diagnoses amateur introspectors have been known to derive harmful results, trying to "live up to their characteristics."

Insistence on the purchasable character of public health has at best one obvious danger. It may give the impression that only ample funds are needed, when in reality the methods employed and the personnel in charge are a more important consideration. — Nation's Health, April 15, 1926.

The Kings County Medical Society, Brooklyn, New York, now in the 104th year of its existence, has decided to break a precedent by allowing laymen to become associate members. They will be permitted to attend and take part in all the regular meetings and discussions of the organization, but will have no voice in the administration.—Archives of Therapeutics, May, 1926.

Doctors, when during your office hours, or in your few spare moments of leisure, the subject of quackery turns up, what have you to say on it? Do you fume and sputter, or do you elucidate? Do you call the chiropractor names, or do you show up the fallacy of his claims? Are you informed on the theories of osteopathy, homeopathy, naturopathy, chiropractic, Abrams electronics, etc., etc.? Have you enough facts to convince your patients and to instruct your hearers? If not, you are missing a precious opportunity. The doctor should be not only a medicine man but also a teacher. Teach your patients the essential fallacies of cultisms and quacks; you will in this wise

spare your patients and yourselves. But to do this efficiently you must be informed.—New York Health Bull., May 8, 1926.

In discussing May Day and its conversion into Child Health Day, the "Long Island Medical Journal" says editorially: "We note the enthusiasm and sincerity for the promotion of child health in the many agencies, official and unofficial, engaged in the general plan of community betterment.

"We observe with regret that in the programs so far coming to our attention the physician—as an individual and as a part of organized medicine—is in the main left out of the picture. True enough the school physician is mentioned at times.

"Is it possible to adequately protect and promote the health of the child? Or, to use the Child Health Organization's own slogan, 'Make health and happiness every child's birthright,' without the physician as an individual, and his medical society as an organization?"

Should industry pay less than the average cost of hospitalizing patients, the actual cost or more than the actual cost? Is the hospital justified in reducing its charges to industry below a cost basis, or should it charge an additional amount above actual cost, knowing that industry can pass it on in an increased price for its products? What are the costs to industry of hospitalizing its cases, and what are the bed-day charges in different localities?—F. L. Rector, Nation's Health, May 15, 1926.

Our present policy in medical education is directed to the Europeanizing of medical service. I picked up the "British Medical Journal" of November 14, 1925, and my eye fell on a report of a recent conference in London on the place of the midwife in the maternity service. I find the first sentences in the opening of the discussion as follows: "Dr. J. S. Fairbairn in an opening paper urged that there need be no rivalry between the general practitioner and the midwife. Their functions were not competitive but complementary. *The sphere of the midwife was attendance upon normal labor, and that of the practitioner was the general supervision of the antenatal and postnatal conditions and attendance on difficult labor.*" (Italics mine, W. A. P.) That is what we are heading for in medical service now. Obstetrics is a function of midwives, except in abnormal cases! — William Allen Pusey, Jour. A. M. A., May 15, 1926.

The Marion Ohio Circuit Court in upholding the right of the State Board of Medical Registration and Examination to revoke the license of a physician who loans his license, gains in weight each day and has established a precedent in Indiana. *It means that any licensed doctor in the State of Indiana who works in an office or so-called medical clinic, associated professionally with nonmedical men, is guilty of aiding and abetting a fraud and that the courts will uphold the findings of the board.* This is the second time in the United States and the first time in Indiana that the court has sustained such a finding by a state board. Judge Chamberlain's findings is far reaching and should help the State Board in its efforts to clear the state of quacks who are ever preying upon the public. —J. Indiana M. A., May 15, 1926.

Many newspaper editors sensed a strong sentiment at the recent National Health Congress to elevate nurses to a position of "equal partnership" with physicians in serving the cause of health. The age-old relationship of doctor and technical assistant was deprecated as undignified for nurses. To make the equal partnership—and, of course, equality in responsibility—applicable, it was proposed to give nurses more courses in this, that and the other subject.

Of course, if nurses are given the necessary education, the matter of partnership will need no discussion because the nurses will be doctors. Many of them enter the "partnership" in this manner. But what about technical assistants to doctors when the nurses all have a medical education?

Long before that time arrives there will be a new class of nurses to carry on the traditional service of these devoted women, who will neither have nor need a medical education, and who will not want to be near-doctors.

In Kentucky, according to a report by the Medico-Legal Committee of the Kentucky State Medical Association, the Court of Appeals has held that lack of x-ray pictures of fractures is "*prima facie* evidence of malpractice," if there is any possibility of obtaining x-ray pictures. "In the same way," the report says, "our Court of Appeals has decided that failure to administer antitoxin promptly, as promptly as it can be secured after a diagnosis of diphtheria, is malpractice."—Ohio Health News.

There are 107 hospitals in the United States for the care of contagious diseases. These institutions, with an aggregate capacity of 9309 beds, must perform the enormous task of caring for those of our 117,000,000 people who contract contagion.

It has been estimated by various investigators that for urban population one bed for every 2000 persons is necessary for this purpose. But in the United States as a whole there is but one-sixth as many beds as would be required if this ratio were maintained.

That provisions for the care of contagious diseases are inadequate throughout the hospital field appears indisputable. Especially is this true in the rural districts, where too often the old-time pesthouse—which is too frequently all that its name implies—still exists.—Modern Hospital.

Among the chronic diseases cancer steadily increases its toll of victims. The incidence of diabetes grows greater year by year, and though in insulin we have a powerful weapon against it, we have no sure knowledge of how the disease may be prevented. Arteriosclerosis and nephritis are not becoming less prevalent.—Boston M. and S. J., April 22, 1926.

"The spring months bring municipal elections and consequently many changes in health officers," says the Bulletin of the California Board of Health. Among those recently announced are the following:

Smith A. Quimby succeeds G. G. Hawkins as health officer of Madera County. Both are licensed to practice medicine and surgery in California and are members of the California Medical Association.

Robert Evans of Concord has been appointed city health officer to succeed George McKenzie. Both are licensed to practice medicine in California and are members of their county and state associations.

G. L. McLellan has been appointed city health officer of San Leandro to succeed Mr. F. A. Nikirk. Doctor McLellan is licensed to practice medicine and surgery in California, but is not a member of the California Medical Association.

Glenn T. Logsdon has been appointed city health officer of Oceanside to succeed H. F. Crandall. Doctor Logsdon is licensed to practice medicine and surgery in California, but is not a member of the California Medical Association. Doctor Crandall is a member of the California Medical Association.

H. M. Hawkins has been appointed city health officer of Taft to succeed M. W. Pascoe. Both are members of the California Medical Association and, of course, licensed to practice medicine and surgery in California.

The Census Bureau announces that the birth rate for 1925 was lower than for 1924, and that the death rate was higher for the same period.

The report states that the infant mortality rate was also higher for 1925 than for the preceding year.

There are as many explanations of these discouraging figures as there are of Vare winning the senatorial nomination in Pennsylvania on a "wet platform."

Birth control practitioners may find some consolation in the lessened birth rate, but surely only microbes of various kinds and sizes may find satisfaction in the increased number of deaths.

Those who serve should buckle their armor tighter and intensify the offensive.

PROCEEDINGS OF SCIENTIFIC SECTIONS 1926 C. M. A. MEETING

(Abstracts from Minutes of Those Sections Whose Secretaries Have Sent in Their Reports)

DERMATOLOGY AND SYPHILOLOGY SECTION

Secretary's Report (Samuel Ayres, Jr.)

Three meetings were held: The first on April 28, with a symposium on allergic skin diseases, Moses Scholtz, presiding. The attendance was about sixty. The program was carried out as published in the April issue.

The second meeting was held on April 30 and was a symposium on syphilis. The attendance was about the same as on the previous day. Again the program as previously published was carried out.

The chairman, Moses Scholtz, appointed the following: H. E. Alderson, Laurence Taussig and Samuel Ayres, Jr., a committee to draw up a resolution regarding the use of x-ray for the removal of superfluous hair.

The third meeting on May 1 dealt largely with cutaneous neoplasms.

H. E. Alderson as chairman of the committee appointed for the purpose of presenting a resolution regarding the use of x-ray for the removal of superfluous hair, offered the resolution voicing the sentiment of the section on dermatology and syphilology as being strongly opposed to the use of x-ray for the removal of superfluous hair as it is being advocated by certain nonmedical practitioners, in view of the fact that the destruction of the hair root by means of x-ray is almost invariably accompanied by damage to the skin resulting in atrophy.

The sense of this resolution was unanimously approved by the section.

The following were elected officers for the ensuing year: H. E. Alderson, chairman; E. K. Stratton, vice-chairman; C. E. Schoff, secretary.

A dermatological clinic was held by Doctor Clark at the Ethel Moore Memorial Hospital on April 29.

GENERAL MEDICINE SECTION

Secretary's Report (J. Marion Read)

First Meeting called to order by the chairman at 2:15 p. m.

The scientific program of this and all other meetings was carried out as published in the April issue of CALIFORNIA AND WESTERN MEDICINE.

At 2:45 attendance was 112. It reached a higher figure later as forty-seven others came in after the above count was made. Others left also, in consequence of which the attendance varied from time to time.

Second Meeting—Election of officers: J. Marion Read, San Francisco, was elected chairman and James F. Churchill, San Diego, secretary, to serve in their respective capacities for 1927.

The attendance at this meeting was the largest of any, due to the fact that the Surgical Section was not in session on this afternoon. At 3:30 there were about 150 present.

Third Meeting—The scheme was tried for the first time at this 1926 meeting, I believe, of setting a time clock at the start of each paper, the clock set so that it automatically rang at the end of the fifteen minutes allowed for each paper, notifying the reader that his time was up. No one was stopped at this time, but the responsibility of continuing was upon the reader. This impersonal manner of keeping the time, which allowed of no partiality being shown, was, to my mind, very satisfactory. At least it did not require that the chairman interrupt the speaker to tell him his time was up. No adverse comments were heard upon this plan of running the meeting. Several favorable comments were expressed to the effect that the meetings were conducted in a dignified manner and run off expeditiously.

The average time consumed by the fifteen papers was 16.6 minutes, ranging from 9.5 to 24.5 minutes. It is exceedingly difficult and sometimes unfair to hold a speaker to the exact fifteen minutes and since few utilize the allowance of four minutes for final discussion I see no objection to allowing a speaker to run over a minute or two. The greatest excess of time was 9.5 minutes and from the nature and interest in the paper it seemed justified. I think it well to announce a time limit of fifteen minutes so speakers will try to keep their papers within that limit, but I believe the chairman must be allowed to permit some to exceed this limit. The total time of each day's program was kept within 2.5 hours, which is the essential point.

GENERAL SURGERY SECTION

Secretary's Report (John Homer Woolsey)

Minutes of the meeting of the General Surgery Section of the fifty-fifth annual session of the California Medical Association, which was held on April 28, 30 and May 1, 1926, at Ebell Hall, Oakland.

Officers of this section: Thomas O. Burger, chairman, National Bank Building, San Diego; Edgar L. Gilcreest, vice-chairman, Fitzhugh Building, San Francisco; John Homer Woolsey, secretary, Medico-Dental Building, San Francisco; John H. Breyer, assistant secretary, 864 South Madison Avenue, Pasadena.

First Meeting, April 28, 1926—Meeting called to order at 2:30 p. m., Thomas O. Burger, chairman, presiding. The program was carried out as published in the April issue of CALIFORNIA AND WESTERN MEDICINE, with the exception of the paper entitled, "Dislocation of the Outer End of the Clavicle," by John Dunlop, Pasadena, which was placed in the hands of the secretary, but the author was unable to be present to read it. Therefore, the paper was not given. Sixty-four persons in attendance at this session.

Second Meeting, April 30, 1926, called to order at 2:30 p. m., Thomas O. Burger, presiding. Program as published with exception of paper entitled, "Diagnosis and Treatment of Echinococcus Cysts of the Liver," by Lucius W. Hotchkiss, Santa Barbara, which was received by the section secretary but not read due to the death of the author shortly before the date of the meeting.

One hundred and sixty-four persons in attendance at this session.

Third Meeting, May 1, 1926, called to order at 10 a. m., Thomas O. Burger, chairman, presiding.

Election of section officers (1926-27) resulted as follows: Fred R. Fairchild, Woodland, chairman; Joseph K. Swindt, Pomona, vice-chairman; John H. Breyer, Pasadena, secretary; Edmund Butler, San Francisco, assistant secretary.

No other business transacted.

The scientific program was continued and carried out as published.

Seventy-eight persons in attendance at this session.

PATHOLOGY AND BACTERIOLOGY SECTION

Secretary's Report (Roy W. Hammack)

The meeting of the Pathology and Bacteriology Section was held Friday, April 30, at 2:30 p. m.

The first paper, "Quantitative Examination of Albumin in Urine," by A. M. Moody, was discussed by W. T. Cummins of San Francisco and Roy W. Hammack of Los Angeles.

The second paper, "The Experimental Production of Arteriosclerosis," was discussed by W. D. Sansum, Santa Barbara; Newton Evans, Loma Linda; A. M. Moody, San Francisco; Roy Stevenson, San Diego; and W. T. Cummins, San Francisco.

The third paper, "Chronic Appendicitis," by H. E. Butka, was presented by O. T. Cuttler in the absence of Butka. It was discussed by H. J. Ullmann, Santa Barbara.

The fourth paper, "The Action of Spider Poison," by Emil Bogen and George D. Maner, was not discussed.

The fifth paper, "The Relation Between the Clinician and the Clinical Laboratory in the Standardized Hospital," by Roy Stevenson, was discussed by A. M. Moody, San Francisco; W. T. Cummins, San Francisco; Roy W. Hammack, Los Angeles; and Elmer W. Smith of San Francisco.

A. W. Moody of San Francisco was elected chairman of the section for the coming year and Roy W. Hammack of Los Angeles, secretary.

RADIOLOGY SECTION

Secretary's Report (Frederick H. Rodenbaugh)

The section held an informal business meeting; no scientific program was attempted.

Election of officers: J. W. Crossan, Los Angeles, chairman; R. F. Kile, San Francisco, secretary.

It was decided at this meeting that the Section on Radiology resume a place on the program and hold regular sectional meetings which were discontinued at the Oakland meeting.

SECTION ON TECHNICAL SPECIALTIES

Minutes of the Sixth Annual Meeting

Edna J. Shirpser, president, Children's Hospital, San Francisco; Sophie H. Mersing, secretary-treasurer, Mount Zion Dispensary, San Francisco.

The fifth annual meeting of the California Association of Medical Social Workers opened with a luncheon at Hotel Oakland, Edna J. Shirpser, president; Sophie H. Mersing, secretary. Delegates from Los Angeles, San Francisco, and medical social workers representing the various agencies in Alameda County were present.

The program meeting followed, with 150 people in attendance.

The following program was presented:

President's and Secretary's report.

Medical Social Service in Government Hospitals, Evelyn Z. Phelps, Pacific Division American Red Cross, San Francisco. Discussion, Major R. A. Davison, Letterman General Hospital, San Francisco.

Work of the Cardiac Clinic, Sarah Robertson, Children's Hospital, Los Angeles.

Advantages of Medical Social Service in Orthopedic Surgery, George C. McChesney, Fitzhugh Building, San Francisco. Discussion, Lionel D. Prince, Medico-Dental Building, San Francisco.

The Medical Social Worker and the Problem of Mankind, Percy T. Magan, White Memorial Hospital, Los Angeles.

On What Financial Basis is Clinic Care Determined. Discussion opened by N. Florence Cummings, Stanford University Hospital, San Francisco; William Dock, Stanford University Hospital, San Francisco; Fred Firestone, Mount Zion Hospital, San Francisco; Paul Castelhun, Saint Luke's Hospital, San Francisco; Rudolph Dresel, Children's Hospital, San Francisco; Ida T. Fleming, Children's Hospital, San Francisco; Alice M. Keane, Saint Luke's Hospital, San Francisco; Josephine Abraham, Mount Zion Hospital, San Francisco; Marcella Leonard, San Francisco Hospital, San Francisco.

Business meeting.

Following Doctor Magan's paper we were favored with a short address by W. E. Musgrave, editor of CALIFORNIA AND WESTERN MEDICINE, honorary member of our association, and friend.

The following officers were elected: Ray Lyman Wilbur, Stanford University, chairman of Technical Specialties Section; John C. Wilson, 410 Medical Office Building, 1136 West Sixth Street, Los Angeles, secretary.

California Association of Medical Social Workers: Sophie H. Mersing, Mount Zion Hospital, San Francisco, president; Viola Cohick, vice-president; Elizabeth H. Moore, Letterman General Hospital, San Francisco, secretary; Marion T. Maxwell, Haight Street Health Center, San Francisco, assistant secretary. Directors: Edna J. Shirpser, Children's Hospital, San Francisco; Kathryn Thomason, White Memorial Hospital, Los Angeles; Rose Steinhart, University Hospital, San Francisco; C. Ruth Hersey, Stanford Hospital, San Francisco.

The meeting was by far the largest and most gratifying of any held previously, and marks a turning point of progress for our organization.

CALIFORNIA ASSOCIATION OF MEDICAL SOCIAL WORKERS

A Unit of the Section on Technical Specialties of the California Medical Association

President's Address, 1926

EDNA J. SHIRPSER, R. N.

This is the fifth annual meeting of the California Association of Medical Social Workers. Since our organization we have endeavored to maintain the standards laid down in our Constitution. Our policy is to eventually develop an organization in California which will standardize Medical Social Service and place it before the community as a recognized profession.

We hope to bring before the physicians our desire for co-operation by assisting them in providing adequate care for patients unable to pay for medical attention.

No institution caring for free or part-pay patients can function properly without the medical social worker. It is not only our duty to help carry out the physician's instructions, but we must also prevent those able to pay for services from taking advantage of the physician's generosity.

We thoroughly appreciate the opportunity presented us to take part in the annual program of the California Medical Association. We hope that our program has much to interest the physician as well as the medical social worker.

At present our membership is limited to the San Francisco and Los Angeles sections. The medical social workers of Alameda County have been invited to attend this meeting, and if our efforts can instil enthusiasm among our Alameda County co-workers we shall be grateful. It is our earnest desire to establish an affiliation in the East Bay section.

May I take this opportunity to thank Dr. Ray Lyman Wilbur, our chairman of the C. M. A. Section on Technical Specialties, for his interest in our activities and our officers and members for their co-operation during the past year.

CALIFORNIA ASSOCIATION OF PHYSIOTHERAPISTS

Minutes of the Sixth Annual Meeting

By MABEL PENFIELD, *Secretary*

The sixth annual meeting of the California Association of Physiotherapists was opened by the vice-president, Florence Burrell. After reading Doctor Wilbur's note of regret that he could not be present, she welcomed the members and visitors, and continued with the opening address on "The Present Uncertain Status of the Physiotherapy Technician." Announcement was made of our Association Placement Bureau, which is permanently located at Hahnemann Hospital, San Francisco, under the direction of the head technician of the physiotherapy department.

The guest speaker of the afternoon was Harold Hitchcock of Oakland, whose subject was "The Relation of Posture to Lower-Back Strains." Doctor Hitchcock emphasized the importance of training the posture sense, and using a few exercises only as means toward that end. Three sets of muscles have been much neglected in posture work, he stated; they are the gluteus, the oblique abdominal, and the diaphragm. He illustrated on the blackboard the six or eight exercises that he uses.

The two remaining papers of the program were given by members of the Association and presented points in the technique of certain treatments. Hazel Furscott gave a "Practical Discussion of Diathermacy Technique, Results, with Case Reports and X-Rays in Bursitis, Arthritis, Back Strains." She gave a practical demonstration of the choice and placing of electrodes.

The final paper was read by Mabel Penfield, "Quartz Lamp Technique and Case Reports, Examples of Successful and Unsuccessful Results in Cases of Eczema, Osteomyelitis, Gland Tuberculosis, and Varicose Ulcers." Discussions by visitors and members followed each paper.

The annual business meeting was held immediately following the program. The secretary's report of the fifth annual meeting was read and accepted. The treasurer's

report was referred to the first monthly meeting. The following business was transacted:

A motion was carried to retain the same officers of the Technical Specialties Section, namely, Doctor Wilbur, president, and Doctor Wilson, secretary.

The following motion was carried: that the past presidents and secretaries of the northern branch be appointed to a committee to gather together and print the by-laws that have been formulated from time to time.

A motion was carried that W. E. Musgrave, San Francisco, and E. W. Cleary, San Francisco, be declared honorary members of the Association.

Discussion (at the vice-president's suggestion): That local officers and executive committees for both northern and southern branches be elected each year to transact the business pertaining to that branch. A motion was carried that this subject be submitted to the new officers.

Discussion (at the vice-president's suggestion): That a report be issued periodically containing business transactions, suggested policies, and general news of the Association for the benefit of those members living away from the cities where the meetings are held. A motion was carried that the secretary be instructed to recommend to the new Executive Committee that they appoint a member to gather material for and edit a monthly bulletin, for which this same editor shall receive adequate remuneration.

The following officers for the ensuing year were elected: Antoinette White, Hollywood, president; Margaret Blake, Los Angeles, vice-president; Helen Paull, Los Angeles, secretary-treasurer.

From the President's Opening Statement—The California Association of Physiotherapists is happy to welcome its members and guests to its anual meeting. We have chosen part of our program this year with the idea of giving some points of technique in physiotherapy treatments rather than types of patients to be treated.

There is a difference between the technician who knows fundamentals of physiology and anatomy, electricity and hydrotherapy, and knows how to apply them intelligently and who, moreover, is always ready to learn something new, and the person who is self-trained or goes out from one of the electric companies and applies electrodes and turns on switches not even in the name of electrotherapy, but of physiotherapy. People are coming to the office constantly with physiotherapy on their cards who know nothing but mechanical massage.

Where are we and who are we? How are we going to make the medical profession recognize that when they have tried physiotherapy and failed, the reason may be improper technique by an untrained physiotherapist. We have no letters or title. Anyone may call himself a physiotherapist, and we can do nothing about it. But what we can do is to try to register all those who come up to the standards in our constitution, to have their names on file, and to give them membership cards so that a doctor may be assured of the qualifications of the physiotherapist he employs by asking for the card or writing to the placement bureau. Our bureau is with the head physiotherapist at Hahnemann Hospital, San Francisco. The main work of our Association this year should be to make this bureau most effective by increasing the registration, raising the standards of physiotherapists and, in turn, that of physiotherapy.

Harold H. Hitchcock of Oakland in discussing the relation to posture to low-back strain said in part:

"What constitutes correct posture is, of course, well known to you who are doing physiotherapy. By this we generally mean that one should hold the head up, the chin in, and back flat, the gluteal muscles tense and abdomen in, rather than standing with the pelvis tilted forward and the lumbar spine hyperextended, as is commonly seen in the individual who sustains a low-back strain.

"One of the most important things in clearing up low-back strains is to correct their faulty posture and give them exercises to develop the muscles which are necessary to maintain this corrected posture.

"The correction of posture should be the real end in view and not the exercises, the exercises being only the means to that end. Too often the individual receives exercises and posture work, and treatment for back strain is lost in the haze of a complicated system of exercises. He knows not what he is striving for, and is the individual who comes back and says, 'I did your exercises and I am no better.'

"Therefore let me emphasize that the correct posture should be taught with all the emphasis on the correct posture and the exercises be given as a side issue to develop the trunk muscles and make these exercises simple."

Hazel Furscott discussed diathermy technique. "Diathermia," said the speaker, "is heat produced within living tissues. This heat is developed in the passing of an electric current through the body tissues by placing electrodes on the skin on either side of the part to be treated.

"A very great amperage is necessary to pass appreciable heat through the body tissues, and so the high frequency type machine is used. The high frequency machine gives an alternating current of greater frequency than that which will produce muscle stimulation. Briefly, it consists of four major parts: the transformer to step up the street alternating current from 110 to 3000 to 4000 volts; the condenser to increase the frequency of alternation; the spark gap to measure the amount of current entering the patient; and two oscillation transformers. The so-called D'Arsonval current is used for medical diathermy because it has the largest amperage.

"Other methods of producing heat—the baker, hot water bottle, poultice, compress, hot-air bath, etc.—are valuable, but do not offer the deep penetration of diathermic heat. The other advantage of diathermy is the possibility of definite dosage over a definite body area. Deep penetrative, local measured heat, then, is the therapeutic value of diathermy.

"The technique for local diathermia is simple. It must be very carefully applied, however, as it may cause very severe burns.

"1. The patient must be comfortable. He is to remain in one position for twenty to thirty minutes.

"2. Sedative treatment is desired; that is a dose well within the patient's tolerance over a period at least of twenty-five to thirty minutes. For sedative effects the current should be slowly turned on with no break in the current and slowly turned off. Sudden breaks in the current are stimulative and tend to set up a reaction within the joint.

"3. The choice of material, size and placement of the electrodes depends on the location of the treatment. The materials most in use are pliable block tin, cut by the technician to fit the part, and German silver mesh, to be used on uneven surfaces of the body such as the shoulder, etc. Saline solution may be also used as an electrode. Bare metal moistened with soapy water should be used. Do not use felt or cotton pads soaked in salt water, as they dry out unevenly, tend to steam and cause burns. The pads should be as large as possible to fit the part. Electrodes which are too small tend to slip, and also concentrate the heat to the degree of burning. If a small electrode is used as an active one and a larger one indifferently, the heat will be focused at the smaller electrode, and its size determines dosage. The placement is much under discussion. I think that the practitioner will find that the opposite half-cuff method meets the contours around the knees, elbow and shoulder, and the ankle is best treated with the foot submerged in water, the other electrode above the ankle, the back, hip and neck by the 'through-and-through' method.

"4. The wires should not be heavy enough to pull off the electrode, and should be insulated.

"5. Elastic bandages to hold the electrode on firmly and snugly are necessary to eliminate burns.

"6. Clips are of greatest importance. They should be secure either by a spring or soldered on, and they should be as flat as possible.

"7. Rubber pillows, sponges, sheeting, sandbags, are necessary accessories to the comfortable diathermy treatment.

"*Summary*—Diathermia is heat generated within living tissues causing deep hyperemia. It, therefore, is especially adapted to the treatment of arthritis and bursitis,

as they are diseases calling for analgeic, bactericidal, solvent, and absorptive treatment."

Mabel Penfield in her discussion of quartz lamp technique said:

"About a year ago the Alameda Health Center installed in their physiotherapy department two quartz mercury lamps, an air-cooled lamp, and a water-cooled lamp. During the year the technicians in that department have treated about 100 patients with diagnoses of about everything, including rickets, tuberculosis, duodenal ulcer, diabetes, varicose ulcer, skin eruptions of many kinds, etc., and from them I have chosen about eighteen cases to review.

"My conclusions are in connection with ulcers, osteoglands:

"1. The conservative treatment is very slow or useless. Blistering treatments plus general raying with ACL were factors in the successful cases.

"2. In ulcers, whether the result was complete healing or not, the pain was relieved after one or two treatments.

"3. In osteomyelitis cases, though unfinished, the soft parts became more pliable, increased in size, and improved in circulation."

A number of the papers read at the meeting will be published in full elsewhere.

ALAMEDA COUNTY

Alameda County Medical Association (reported by Pauline S. Nusbaumer, secretary)—The regular monthly meeting of the Association was held at the Ethel Moore Memorial Building, May 17, J. K. Hamilton presiding. The program consisted of case reports by members of the staff of Providence Hospital. S. A. Jelte reported a case of generalized Hodgkin's disease in a male, aged 45 years, which had persisted for three years and which completely disappeared following an attack of severe erysipelas. The diagnosis was confirmed by section of an excised gland. It is now twenty-two months since the attack of erysipelas, and there has been no recurrence of the symptoms of Hodgkin's disease. X-ray therapy was used with good effect in controlling the mediastinal and abdominal lymphatic enlargements prior to the development of the erysipelas.

J. Elliott Royer reported a tumor of the cauda equina in a man aged 57, with a history of hematuria at intervals since August, 1924. Six months later he complained of unilateral pain in the lumbar region radiating downward, simulating sciatica. Three months later pain was bilateral. Both legs grew weak and he was soon unable to walk. Examination in September, 1925, revealed definite tenderness by digital pressure on both sides of the spinous processes of the second and third lumbar vertebrae, and when assisting him to a sitting position excruciating pain was provoked in the lumbar region and both legs. There was incomplete flaccid paralysis of the lower extremities, with a loss of the deep and superficial reflexes. Sensory loss was notably slight, not symmetrical and not sharply segmental. Spinal fluid was straw color and difficult to obtain. Queckenstedt's test was positive. X-ray showed very slight changes in second lumbar vertebra. No bladder or rectal disturbances. Diagnosis was made of pressure upon the cauda equina, due to metastatic growth of vertebra. The history of hematuria suggested hypernephroma as the probable primary center. Three months later flaccid paralysis was complete, the area of sensory loss was greater, and he had lost control of his sphincters. One month later he died. Autopsy confirmed the diagnosis, revealing a large hypernephroma and a tumor mass on the left side, involving the first, second and third lumbar vertebra. The tumor tissue had replaced some of the bone structure of the second lumbar vertebra, and was pressing upon the cauda equina. In the majority of cases malignant disease of the spine runs a rapid course, especially as regards the neurological symptoms, and often produces a complete flaccid paralysis; while primary tumor of cauda equina progresses more slowly, and complete flaccid paralysis is rare. The late appearance of anesthesia following the early and profound motor paralysis might be explained by the fact that the sensory roots in the cauda equina are larger than the motor roots, hence earlier irritation of the sensory roots causing pain. But the anesthesia followed motor paralysis, probably because the sensory root fibers possess a greater power of resistance. Absence of bladder and rectal disturbances mean that the conus is not involved. The presence of these symptoms, however, give little assistance in localizing, since we have the same symptoms whether the pressure is upon the roots near the exit from the conus or in the lower part of the cauda equina.

E. H. Barbera reported an unusual case of intussusception.

O. P. Stowe reported a case of extra articular osteoma of the right knee joint within the patella ligament, following injury in a boy 14 years of age. Synovitis preceded the appearance of the tumor, which was first noted in x-ray examination six months after trauma. Two years from original injury a flat, heart-shaped bony tumor, which was found on microscopical examination to be an osteoma, was removed, seven centimeters long, five centimeters wide, and one centimeter thick.

George McClure reported the case of a girl 14 years of age who, in a fit of laughing, aspirated a pin. She was suddenly seized with a severe coughing and choking spell. This subsided somewhat, and as long as the patient was quiet she did not have any trouble, but the least exertion started her coughing. She was sent immediately to the hospital and an x-ray taken. On indirect examination no foreign body was seen in the nasopharynx, throat or larynx. X-ray showed a straight pin about one and one-quarter inch long, with head resting on the cricoid and point directed posteriorly and upward. Suspension advised. Suspension bronchoscopy, ether anesthetic. No foreign body seen in larynx or trachea. Further x-ray, pin was discovered in lower right bronchus, head down. Further suspension, but unsuccessful in locating or removing pin. Time: one hour and fifty minutes. Anesthetic discontinued a short time previous, and patient semi-conscious when the tube was removed. A severe vomiting spell followed with coughing. Progress of patient good. X-ray of lungs did not reveal any foreign body. X-ray of gastro-intestinal tract revealed straight pin in ileum. Pin passed spontaneously and recovered. Impossible for pin to be in esophagus at time of second x-ray examination because of remoteness to right side. Only possibility of spontaneous expulsion from lungs and subsequent entrance into esophagus and stomach.

Frank S. Baxter discussed "The Control of Head Pains or Headache Through the Nasal Ganglion." The sensory supply of the nose and paranasal sinuses was traced, briefly, from the nasal ganglion to the terminal distributions of the important nerve center. The intimate relationship of the ganglion to the contiguous posterior group of paranasal sinuses and its superficial location, with reference to the nasal mucosa, was stressed. The writer was able to control many intractable lower-half headaches by cocainization of the nasal ganglia. Oculo-orbital pain in a case of kerato-conjunctivitis, secondary to a purulent ethmoiditis, was immediately relieved and the indicated intranasal surgery done with the same anesthesia. Several cases of hay fever or hyperaesthetic rhinitis were markedly or totally relieved of their distressing symptoms by the treatment of the nasal ganglion. A true herpes ophthalmicus was promptly controlled by applications to the ganglion of the side affected. Concluding he showed that many of the foregoing results lack an adequate anatomical basis for their explanation, due to the fact that the function of the sympathetic nervous system and its interganglionic connections is but poorly understood. We only know that they do exist and that in many cases they may be of greatest assistance in relieving our patients of distressing symptoms.

N. Austin Cary reported a case of osteomyelitis in a child in which the initial infection began at 6 months of age from a small local skin lesion upon the buttocks. The first bone foci appeared at 1 year of age, followed during the next five and one-half years by repeated foci of the long bones and soft parts, the organism in each instance being a pure staphylococcus aureus. Repeated attempts to obtain growth from blood-stream cultures were negative. The initial bone lesion was extremely toxic. Temperature 102 to 106, with marked loss of weight covering a period of four weeks. Convalescence was

rapid after radical drainage of abscess in femur. Subsequent attacks occurred at irregular intervals of from two to twelve months, the greater number of foci occurring in the femurs. In the foci opened before abscess had ruptured into the soft parts, the local manifestations were found to be typical in appearance of a furuncle of the soft parts, a circumscribed elevation one-fourth inch high springing from a base twice as wide directly over the bone cortex; the tip of the elevation was soft, yellow in color, gradually blending into deep red, then gradually fading to natural bone color of the cortex at the base. On excision of the area the yellow core extended down to the cancellous bone and occasionally into the bone marrow. During the five and one-half years the foci recurred in various locations. The child was operated upon twenty-eight times and forty-eight incisions made, twenty-eight to drain bone foci and twenty abscesses in the soft parts. A septic myocarditis was the most serious complication, showing evidence of its presence for two and one-half years. Approximately two years had elapsed since the last operation. The thighs were extensively scarred from the incisions; no loss of function resulted. A coxa valga deformity of the left hip gave no symptoms. The heart lesion had completely cleared. Autogenous vaccines were used; the extent of benefit was undetermined. Incisions with drainage, rest, reconstruction by dieting and nursing gave the best results. Incisions were always drained and not permitted to close. Early closure resulted in formation of soft tissue abscesses. The author emphasized the necessity of early diagnosis of the developing foci before destruction had progressed sufficient to be shown by x-ray. Local stiffness with restricted movement, mild at first but gradually increasing, pain, swelling with increased white cell count, mild but increasing, should be sufficient evidence of developing foci. No advantage was gained by waiting for pointing. Radical excision of bone was advised against, preferring multiple bone openings to chiseling, except the point foci, which were excised in mass.

A Tribute to Edith S. Brownsill by May E. Walker—"The Alameda County Medical Association has set aside this time in the regular program to offer a tribute to Dr. Edith Brownsill, whose life came to its close on April 26, 1926. For twenty-one years Doctor Brownsill shared with us all the ministry of healing. She was, in the fullest sense, a beloved physician. For her the practice of medicine was a constant search for more abundant life for all who came to her for counsel and care. She never asked what her work would bring her; never sought to build up a moneyed clientele; made no plans on anticipated large returns. For her the art of healing was an end in itself; the patient was the means, regardless of wealth, class or culture. Her work was never a task imposed, but rather a cherished privilege. To a rare degree she possessed that depth of spirit which always inspires confidence; her very presence in the sickroom meant that 'hearts were brave again and arms were strong.' Her babies loved her with the fine discrimination of child affection and, although to them a doctor's office meant discomfort if not actual pain, her tenderness beguiled their fears. To their mothers she was strength, courage, and assurance. She inspired her associates with realizable ideals and fine standards of performance. Hers was a ministry of work and of work done to the very fullness of ability. In this high endeavor she spent herself, careless of weariness, lowering resistance and waning vitality. Thus she came to the close of her career a victorious exponent of the noble challenge, 'I am among you as one who serveth.' She left no family in the sense of blood relations, but hers was the great family of devoted patients who loved her for herself. Doctor Brownsill's life will continue in its ministry through many whose lives she touched. Hers is indeed a precious memory."

The meeting adjourned out of respect to Doctor Brownsill.

ORANGE COUNTY

Orange County Medical Association (reported by D. R. Ball, secretary)—The Society has held a number of very interesting and profitable meetings during the first half of the present year. In March a joint meeting was held with District No. 16, California State Nurses' Association at which common problems were discussed. E. W. Hayes of Monrovia, who is conducting a diagnostic chest clinic in connection with the work of the staff at the Orange County General Hospital, spoke on "Some Points in the Treatment of Pulmonary Tuberculosis." We all enjoyed the opportunity of becoming better acquainted with Doctor Hayes and of hearing his ideas on this subject.

In April we were entertained in a most delightful manner by Dr. and Mrs. D. C. Cowles at their home in Fullerton. C. E. Phillips of Los Angeles very ably presented the subject of "Focal Infection."

In May a military meeting was held with the idea of increasing interest in the work of the Medical Reserve Corps. Lieutenant-Colonel M. B. Wellington spoke on "The Purpose of the Organization of the Reserve Corp," outlining the organization and working plans of the whole reserve. Lieutenant-Colonel R. M. Fortier spoke on "The Medical Reserve Corps," sketching the history and development of this branch of the service and telling of the advantages in being a member.

In June we dined at Saint Ann's Inn in Santa Ana and, following an enjoyable repast and social hour, listened to a most interesting discourse on "Hand Infections" by Sidney G. Burnap of Los Angeles.

The Santa Ana Clinical Society has also held several instructive meetings. In March Sterling N. Pierce of Los Angeles talked on "The Kielland Forceps." At the April meeting Woodley Stellar of Los Angeles gave a paper and demonstration on the "Unger Method of Blood Transfusion." In May Merrill W. Hollingsworth of Santa Ana spoke on "Bismuth in the Treatment of Syphilis." All of these talks were both interesting and practical in nature.

The staff of the Orange County General Hospital has completed its first year of service with satisfactory results. It is composed of twenty-two members and is conducted on the rotating plan, each member serving four months on his service. The work is divided into the services of internal medicine; surgery; obstetrics and gynecology; pediatrics; eye, ear, nose, and throat; neurology; urology; roentgenology; and pathology. Out-patient clinics are conducted in all departments. Special clinics are conducted in orthopedics, attended by two specialists from Los Angeles, and in tuberculosis, attended by a specialist from Monrovia. A Social Service department investigates the eligibility of all cases before admission and aids in the follow-up work. The hospital is now accredited by the American College of Surgeons, and necessary steps toward recognition as a Class A hospital by the American Medical Association are now being taken.

SACRAMENTO COUNTY

Sacramento Society for Medical Improvement (reported by Bert S. Thomas, secretary)—The May meeting was held on the lanai and west porch of the Hotel Sacramento, President C. E. Schoff presiding. Thirty-one were in attendance.

Under Case Reports—Ecatena advised that cases of typhoid are still being admitted to the County Hospital from the down-river districts, particularly around Isleton. He suggested that any case of otherwise unexplained fever coming in from that territory be immediately placed under suspicion.

The subject for the evening's discussion, "The Industrial Aspect of Inguinal Hernia," was treated by Charles von Geldern. A résumé of his paper follows: "The general agreement among authorities that hernias are rarely of an industrial nature is not shared by the profession at large. The significance of the persistence of the processus vaginalis definitely established by Russel in 1899 and the principles laid down by him somewhat later have been verified by all subsequent investigators.

"The anatomical structure of the inguinal parts, the character of the tissues involved, and the nature of the abdominal viscera prove beyond any question of doubt that hernias cannot appear suddenly in a normal individual. The development is a slow one and means a gradual dilation of the internal inguinal ring and hernial sac so that eventually a loop of bowel is able to enter the latter.

"The act which patients allege caused the hernia is

practically always a mere incident, the last straw on the camel's back.

"Hernias may be divided from an industrial standpoint into three types, namely, the traumatic, the industrial, and the nonindustrial. The first is a medical curiosity because of its rarity. A direct laceration of the inguinal structures by violence occurs. The industrial type of hernia follows a definite injury or extraordinary strain producing a sudden marked increase in intra-abdominal pressure. There is severe pain and an immediate total disability with evidence of local injury due to sudden dilation. In this type there is a pre-existing processus vaginalis. In the nonindustrial type, which forms by far the greatest percentage, a hernia is discovered during the course of ordinary work. There is no history of definite injury or only, at most, straining at lifting. There is rarely pain and only a partial disability.

"It is the duty of physicians to accept as industrial only those hernias which give a definite history of injury. All others should be promptly rejected."

The paper was discussed by Windmuller, Scatena, Hanna, Wahrer, Brendel, Yates, Drysdale, Titus, Foster, and Young. Windmuller believes with the speaker that traumatic hernia is a great rarity, comparable to the "railway spine." Windmuller speaks from years of experience as a railroad surgeon in the East. Young believes that this whole question regarding partial or whole disability should be handled on a relative basis, i. e., even though we may agree primarily that the herniation presupposes a congenital weakening or saccular formation, we must keep the *relative* compensable element constantly in mind. Foster, Yates, Drysdale, and Titus reviewed some of their borderline cases of the type under discussion. Brendel outlined the present stand of the Industrial Accident Commission.

Von Geldern concluded the remarks by reiterating that the peritoneum will not stretch beyond a certain fixed limit. This is the fundamental factor in placing a traumatic hernia as a rarity.

Applications for membership from William Enville Richardson and J. Hidetara Miyasaki were read for the first time.

A communication was read from Robert E. Peers inviting all the members of the Society to attend the Northern District meeting at Colfax on May 27; from O. C. Marshall, calling attention to the fact that he desires an opportunity to become associated with a general practitioner or surgeon in these parts.

Scatena reported as a delegate to the California Medical Association, first calling attention to the comparatively poor attendance and, second, that Sacramento men read no papers at the last state meeting. He stressed the value of presenting papers at these meetings, and thus let the medical profession know what we are doing in Sacramento. He also reviewed the interesting general sections and medical meetings. Harris reported as a delegate, calling particular attention to the fortune we had in electing Percy T. Phillips as our president. He marks Phillips as a man outstanding in the building as well as the safeguarding of our profession. The secretary reported the luncheon-meeting of the county presidents and secretaries. First, the present dues of the Association are thoroughly warranted; second, the history of the State Association is rapidly being compiled. The plan is to have a permanent history in Lane Library; third, the matter of industrial medicine and contract medicine, with particular reference to the ethics of the same, is being actively investigated by the committee in charge. Lastly, attention was called to amendments pertaining to the election of a speaker to the House of Delegates and the power of a credentials committee.

The meeting adjourned to the banquet room.

SAN DIEGO COUNTY

San Diego County Medical Society (reported by Robert Pollock)—The May staff meeting of the County Hospital presented a program by the new section of gynecology and obstetrics of the County Society. Doctor Wier discussed at some length the problem of occipito-posterior presentations, enumerating its dangers to mother and child. He stressed the desirability of early recognition so that the presentation could be changed before the head engages in labor. If unrecognized before this point there remains only the choice between version and Caesarean section. Cleverdon spoke in detail of his visit to Doctor Potter's clinic in Buffalo, describing the man and his methods and giving a vivid portrayal of his technique of podalic version. Doctor Newman gave a résumé of the principle and technique governing plastic surgery of the female genitalia, emphasizing the fact that the surgeon should aim to restore the function as well as the contour of the parts. He described in detail his own tracheloplasty. Newman also presented a case of angioma of the face which he had treated with electrocoagulation methods with exceedingly good results. Worthington showed two specimens of multiple fibroids of the uterus and discussed the history of the cases.

On May 18 at the Golden Lion Tavern the San Diego County Medical and Dental societies enjoyed a dinner together, after which they were addressed by Leon H. Watkins of Los Angeles on the "Urological Aspects of Obscure Abdominal Pain," and by Rea Proctor McGee of Hollywood, who discussed the subject of facial surgery on which he is an authority. Too much cannot be said in approbation of these get-together occasions at which the members of the two allied professions exchange views on subjects of common interest; and it is a noticeable thing in San Diego that each profession is ever anxious to share its good things with the other. Doctor Watkins' paper bristled with diagnostic points, which the careful diagnostician will do well to heed. Only too often it would seem that abdominal and pelvic surgery is undertaken without carefully eliminating the urinary organs as sources of trouble. Altogether the paper emphatically expressed the practical aspects of an important subject in terms that suggested a ripe clinical experience.

The medical society dinner meeting of June 8 brought out a splendid attendance tending to refute the idea that it is necessary to suspend scientific meetings during the summer months. George Piness of Los Angeles gave those attending a masterly talk upon the subject of allergy, tracing the development of allergic studies from its early beginnings to the somewhat comprehensive specialty it represents today. He described in a general way the method of collection and preparation of the protein substances used and the technique of applying them to patients, indicating the most common conditions in which we find allergic manifestations. He said that the allergic individual was such by inheritance and would always remain allergic, although much could be done to make him comfortable. When he discussed treatment of allergic conditions his remarks were free from the dogmatism so often attending statements from the newer enthusiasts. Every case in his opinion should be approached with a liberal application of common sense. A careful physical examination, including x-ray of chest, should be made. The inheritance of the individual should be scrutinized and his environmental conditions, including occupation, living habits, eating, sleeping, etc., carefully studied. Then and not until this has been done should the treatment of the allergy be attempted. Piness is to be congratulated on the amount of careful research work that he has introduced into this branch of medical science. Especially are we indebted to him for the careful study and classification of the flora of the Pacific Coast with the separation of those producing wind-borne pollens.

SAN JOAQUIN COUNTY

San Joaquin County Medical Society (reported by Fred J. Conzelmann, secretary)—The stated meeting of the San Joaquin County Medical Society was held Thursday, June 3, at W. B. Walker's ranch, eight miles east of Stockton.

Doctor Walker invited the members of the Society to a big feast in the open air on the grounds near his house. At about 7:30 p. m. Walker asked his guests to be seated at the table; fifty-two were present. The president called the meeting to order. The motion of Dewey R. Powell that all business be dispensed with and that the Society make it a purely social evening was seconded and carried. The president asked Doctor Powell to act as toastmaster. After the Society had spent a few hours on an

excellent dinner, during the progress of which the Society was entertained by skilled musicians and singers, the members were requested to enter the beautiful palatial home of Doctor and Mrs. Walker, where J. D. Dameron and Fred P. Clark traced the history and progress of the medical society from its small beginning in 1875 to its present high standard of development. Doctor Werner, professor of history in the College of the Pacific, spoke in a very entertaining and instructive manner on human evolution, from the point of view of the historian. The serious part of the program being concluded, some of the members scattered about in groups visiting, others danced, and some engaged in playing cards. All appeared to thoroughly enjoy the evening. It was late when the members dispersed, all conscious of having enjoyed several pleasant hours in the company of their colleagues where petty jealousies were brushed aside and a social evening was passed that "added to culture, banished selfishness, multiplied usefulness and divided joy." It was a real "get-together" that made everyone feel "united, we stick; and divided we are stuck."

This closes the meetings for the season. There will be no meetings during July and August.

SAN MATEO COUNTY

San Mateo County Medical Society (reported by W. H. Murphy, secretary) — Pursuant to a recently adopted policy of the San Mateo County Medical Society of holding meetings in various parts of the county, the June 16 meeting was held in South San Francisco.

Following dinner at Fraternal Hall, a clinic was held at the South San Francisco Hospital by Edwin Bartlett and Mark D. Lessard.

The problem of attendance at meetings of this society has been largely solved in two ways. One is the writing of a form letter which is distributed to the members a few days before the meeting, giving the program, announcing where the preceding dinner will be held, and stating what business is to be taken up. Each letter urges the member to be present, and to bring physicians from any adjacent counties as visitors. The other means is by making the programs so attractive that most of the members will readily realize the benefits of being present. A self-addressed postcard is inclosed for the member to return, stating whether or not he will attend.

Officers for the coming year are: Howard L. Mawdsley, San Mateo, president; W. O. Callaway, Burlingame, vice-president; W. H. Murphy, Redwood City, secretary-treasurer.

Due to efforts of the American National Health Service to appoint physicians in San Mateo County to look after their work, which consists in medical care of policy-holders in nearly all types of cases at "compensation rates," a motion was passed at the June meeting of the San Mateo County Medical Society to bar from membership in the Society any physician who does this type of work. It was the feeling of the meeting that this is a vicious system, aimed at commercializing medical practice for the benefit of these insurance corporations who aim to make a profit from physicians' services. The secretary was instructed to draw up an amendment to the by-laws of the Society to be presented at the next meeting for passage, specifying the type of work in question. The type of work meant is only that stated above, and does not include industrial practice.

It was further decided to have a copy of this resolution, provided it is passed, sent to the secretary of each county society in the state.

SANTA BARBARA COUNTY

Santa Barbara County Medical Society (reported by A. C. Soper, Jr., secretary)—The regular June meeting was held at the Cottage Hospital on Monday night, June 14, in the staff room. Vice-President H. E. Henderson presided, and there were present twenty-one members, two interns, and as visitors, Drs. Benjamin Merrill, Frank Blaisdell of Santa Paula, and Doctor Lipke of Rio de Janeiro, Brazil, a former graduate of the College of Medical Evangelists.

The first paper of the evening was upon the differential diagnosis between "Pyorrhea Alveolaris and Vincent's Angina" by Henry C. Bagby, M. D., D. D. S., of Santa Barbara; also illustrated by x-ray films of the jaw and by the presentation of a patient who is undergoing treatment for angina. Discussion was participated in by Mellinger, Sansum, Koefod, Freidell, Ullmann, Henderson, and Merrill.

William B. Bowman of Los Angeles presented a very interesting paper upon "Lesions of the Spine," illustrated with many x-ray films thrown upon a screen which depicted the pathology discussed in his case reports. A long discussion of this paper ensued, in which Ullmann, Rexwald Brown, Koefod, Allen Williams, Mellinger, Gray, and Soper took part.

In the business part of the meeting considerable time was given to a discussion of the fee schedule for industrial accident work, and a letter read from one of the committee on that subject appointed by the Council of the California Medical Association. No conclusions and no "resolutions" came from the discussion, although a very general dissatisfaction was expressed.

The meeting duly adjourned at 10:30.

SANTA CRUZ COUNTY

Santa Cruz County Medical Society—An open meeting was held Sunday, May 16, at Watsonville from 11 to 1 o'clock, followed by a luncheon at the Appleton Hotel.

The subject "What May Santa Cruz County Do to Decrease Maternity Hazards" was discussed under the five-and-ten-minute rule by personal health physicians, public health physicians, nurses, hospital representatives, and representatives of the general public.

The meeting, unique in some particulars, was well attended and the discussion well worth while. Ethel Watters presented an analysis of births, maternal and infant deaths for 1923 and 1925 as revealed by the county records.

According to these records a population of some 30,000 created 577 potential citizens in 1923 and 594 in 1925. Of these, 540 (1923) and 549 (1925) were born alive. Death claimed 37 (1923) and 45 (1925) between conception and one year.

Four mothers of 577 (1923) and none of 594 (1925) made the supreme sacrifice. Of the four maternal deaths (1923) one was caused by ruptured tubal pregnancy; one pneumonia following spontaneous abortion; two abortion and miscarriage. There were 19 (1923) and 22 (1925) stillbirths.

Of the 540 (1923) and 549 (1925) infants born alive, 16 (1923) and 15 (1925) died during the first month. The 15 (1925) deaths were caused by: premature birth, 6; birth injury, 3; cerebral hemorrhage, 2; congenital malformation of the heart, 2; cord hernia, 1; septic throat, 1.

Eight (1925) infants died between one month and one year: one of convulsions, four enteritis, one pneumonia, one accident, one hemophilia. Thus we see that of 549 potential citizens created by a population of 30,000 in 1925 without the loss of a single mother, 22 infants were lost between conception and birth; 15 more between birth and one month; and 8 more between one month and one year. A good record that ought to be further improved.

Several important opinions, suggestions and facts were brought out in the discussion. Reports of representatives of the five hospitals of the county showed that approximately 60 per cent of births occur in hospitals under favorable surroundings and under skilled attention. The opinions of doctors, hospital executives, nurses and representatives of the general public were unanimous that some of these young lives might have been saved by a more general and conscientious prenatal service. The advantage of even more general hospitalization were pointed out. Much good would come from a united effort to induce pregnant women to place themselves under the care of their physician from the beginning of conception. To encourage the practice one speaker suggested that doctors make their maternity fees to include prenatal and postnatal care as a necessary part of the service for which

no additional charge would be made. The Society will consider this and other admirable suggestions at a subsequent meeting.

At the brief business session Peter B. Marinovitch, P. O. Box 286, Watsonville, and Samuel B. Randall, Hihn Building, Santa Cruz, were elected to membership. A new constitution and by-laws was adopted, as was the report of the program committee suggesting that the June meeting be a round table Sunday luncheon for members only.

About thirty attended the luncheon held at the close of the meeting. P. T. Phillips, president-elect of the California Medical Association, was called upon and spoke briefly of the importance of meetings like the one just held and of the responsibility of organizations of physicians in the never-ending campaign to improve the health, comfort and happiness, of all people.

At the round table conference and luncheon meeting held at the Casa Del Rey Hotel, Santa Cruz, Sunday, June 13, further consideration was given to the problem of maternity and infancy hazards and what physicians could do to improve the county's already good record in this respect.

As the official figures quoted above substantiate those from other investigations to the effect that the most promising improvement in both maternal and infant mortality and morbidity may be expected from increased and more general prenatal and postnatal service *by the obstetrician,* a resolution was passed unanimously that:

Hereafter the maternity fee shall include all necessary prenatal and postnatal (one month after birth) service to mother and infant; that all doctors and other health agencies be requested to assist in broadcasting this fact and the reason therefor; that the president of the Society, not being engaged in practice and thus not open to possible adverse criticism, be delegated to solicit the co-operation of the public press of the county in making this valuable information available to all citizens.

Periodic Health Examination—With the intention of assuming its legitimate position of leadership in the promotion of health, the Society gave preliminary consideration to the following resolution:

All physicians heartily endorse periodic health examinations for all people of all ages, provided the examinations are made by the family physician and provided treatment for the discovered defects and infirmities is made a consequence of the examination.

To be adequate, examinations, advice and treatment should begin with conception, continue at least once a month until birth, once a week during the first year of life, and once a year thereafter. The examination and treatment of the child about to enter school for the first time and thus begin to be exposed to the increased dangers of infection inherent in crowds, is of outstanding importance. The treatment immediately following this examination should include vaccination to protect the child against smallpox; toxin-antitoxin to protect against diphtheria, and such other protective methods as are endorsed by competent medical opinion.

The Santa Cruz County Medical Society offers these services to citizens of the county and advises and urges acceptance of the offer in the interests of the health of all residents. Fees for these and all other medical and health services are adjusted in accordance with the patient's ability to pay, and if any doctor has more applications for free and part-pay service than he feels able to render, he will refer the surplus to another physician or to the qualified medical service provided for the poor by the county and paid for out of public funds.

All examinations and much of the needed treatment may be carried out with far greater safety, efficiency, privacy, comfort, more useful records and less waste of time of patient and doctor in the doctor's office than elsewhere. In certain instances service in the home or hospital may be advisable; but the congregating of groups of children in particular, in itinerant clinics and health centers is neither necessary nor advisable; is not free from danger, particularly during the prevalence of "colds" or other infections, and invites consequences harmful to all parties through the examination of one doctor's patients by another doctor.

The official public health services—civic, fraternal, welfare and similar organizations—are cordially invited to co-operate with the physicians of the Santa Cruz County Medical Society in this work by actually urging people of all ages, and children in particular, to visit the doctor of their choosing periodically in his office for purposes of examination and treatment.

Santa Cruz County covers only 437 square miles. It has good roads, and one can drive entirely across the county in one of several directions in an hour. There is a population of about 30,000, of whom 50 are adequately educated physicians, or one doctor to each 600 people. There are about 20 dentists, 45 nurses, and five hospitals with a hospital bed for each 250 people, which is about the optimum proportion.

What Santa Cruz and other, at least nonurban, counties needs is not more health agencies but more extensive use of existing agencies created and licensed to serve the health of each citizen as an individual. This resolution is designed to promote this service and will be finally decided at the round table conference luncheon meeting of the Society at the Capitola Hotel, Sunday, July 11, at 11 o'clock, to which all licensed physicians are welcome whether or not they are members of the Society.

Another matter to be considered at this meeting is an optimum fee schedule drawn in harmony with the resolution of the California Medical Association, which provides that all people are entitled to adequate medical services at prices they can afford to pay.

Norman R. Sullivan, Staffler Building, Santa Cruz; Edith S. Harrison, Stoesser Building, Watsonville; and Fred Harrison, Stoesser Building, Watsonville (by transfer from Placer County) were elected members of the Santa Cruz County Medical Society.

• SONOMA COUNTY

Sonoma County Medical Society (reported by N. Juell, president)—At the June meeting of the Sonoma County Medical Society J. Leslie Spear of Santa Rosa was elected to succeed Guy A. Hunt as secretary.

C. O. Sappington delivered a very interesting address on "Periodic Health Examinations—the Technique, Results and Needs."

CHANGES IN MEMBERSHIP

New Members—James P. Warren, Portola; Frederick G. Clark, Taft; Homer M. Barron, Robert L. Belt, O. E. Brendel, George M. Burrall, L. A. Pindler, Gabriel Segall, J. W. Warren, Los Angeles; Mary V. Church, Norwalk; Leo W. Fate, Hawthorne; Edna P. Burgeson, La Habra; Augustus H. Foster, Buena Park; Waldo S. Wehrly, Santa Ana; W. E. McPherson, Loma Linda; W. G. Pitts, Frederick H. Shanks, Oliver E. Thompson, San Francisco; R. A. Buchanan, Lodi; Robert A. Hare, Edward A. Markthaler, Santa Barbara.

Resigned—Walter C. Alvarez, San Francisco County; William Harold Wickett, Orange County.

Transferred—Orrin S. Cook, from San Francisco County to Sacramento County.

Deaths—Bergener, Gustav Julius. Died at Los Altos, May 28, 1926, age 59. Graduate of the Medical College of Indiana, Indianapolis, 1896. Licensed in California in 1910. Doctor Bergener was a member of the San Francisco County Medical Society, the California Medical Association, and a Fellow of the American Medical Association.

Sherk, Henry Howard. Died at Pasadena, June 15, 1926, age 61. Graduate of Jefferson Medical College, Pennsylvania, 1887, and licensed in California the following year. Doctor Sherk was a member of the Los Angeles County Medical Society, the California Medical Association, and a Fellow of the American Medical Association.

Resolution on Commercialized Lectures—The New York Electrotherapeutic Society has passed resolutions asking the Department of Health of New York to control by license all lectures of various commercial concerns dealing in electrotherapeutic apparatus. The society claims that these public lectures are held solely to advertise the goods of these companies.—Federation Bulletin.

Do not blindly follow dictates that endanger your health, and possibly even your prospective motherhood. Before you roll off or starve off or steam off the "pound of flesh," find out if you ought to "take off" or "put on." And then follow the advice of medical science instead of pinning your faith to a fad!—The Delineator.

UTAH STATE MEDICAL ASSOCIATION

T. C. GIBSON, M. D., Salt Lake City.....President
W. R. CALDERWOOD, M. D.....President-Elect
FRANK B. STEELE, M. D., Salt Lake.....Secretary

J. U. GIESY, M. D., Kearns Building, Salt Lake, ...
Associate Editor for Utah

UTAH STATE MEDICAL ASSOCIATION ANNUAL REPORT

Transactions of the House of Delegates. Thirty-second Annual Meeting, May 6, 7, and 8, 1926, Stewart Hall, University of Utah, Salt Lake City, Utah.

FIRST SESSION

Meeting was called to order by the president, T. C. Gibson of Salt Lake City; Frank B. Steele, secretary.

The secretary called the roll of the House of Delegates, there being a quorum present.

The secretary moved that the reading of the minutes of the 1925 meeting be dispensed with, inasmuch as a report of the proceedings was printed in full in the Association's organ, CALIFORNIA AND WESTERN MEDICINE. Seconded by Hampton, and carried unanimously.

The president appointed the following Reference Committee: J. P. Kerby, chairman; M. M. Critchlow, Joseph Jack.

REPORT OF THE SECRETARY

By F. B. STEELE

Insofar as the affairs of our Association are concerned, the year has been without unusual incident; no emergencies have arisen. Peace and harmony have prevailed.

With the exception of the passing of one of our past presidents, George E. Robison (February 10, 1926), death has not encroached upon our active membership.

Membership of the Association, tabulated and compared with last year, is as follows:

	Last year	
Boxelder County	8	—1
Cache Valley	14	0
Carbon County	15	0
Salt Lake County	218	—6
Uintah County	7	—1
Utah County	30	—5
Weber County	46	+5
	338	—8

This apparent loss in membership is probably due in a great measure to the holding of the annual meeting so early in the year. Some members are remiss in the payment of dues. A goodly number of these will probably come in later in the year. If these members realized how much additional work their negligence entails upon the secretary of their county society, the secretary of the State Association and the office force of the secretary of the A. M. A., I am quite sure they would be more prompt. It is a continuous "take the name off, add the name to" the roll all along the line. The office of the A. M. A. estimates that it costs not less than $1 per member to reinstate those who have allowed their membership to lapse. While on this subject I would most earnestly bespeak a more cordial co-operation of the secretaries of the component societies. From your reports the report to the A. M. A. is made up, and from the reports of the secretaries of the various state associations is made up the National Directory. May I urge prompt reports giving in full the data asked.

FINANCIAL

Receipts

From post-graduate course, September, 1925	$ 940.00
From Dr. J. J. Galligan, chairman of Arrangements Committee, proceeds of banquet, September 8, 1925	17.45
From secretaries of the component societies, membership dues	1704.20

Disbursements

Five hundred stamped envelopes, 10/30/25	$ 11.53
Turned over to treasurer	2630.12
Balance in hand of secretary	20.00

On behalf of the management of the A. M. A., I again bespeak your material support of the magazine "Hygeia." This is a public health journal devoted to individual and community health, and the information is from authentic sources. It seems that less than 15 per cent of the physicians of this state are subscribers.

This Association has not this year attempted any work of a constructive nature. I would most prayerfully suggest for your consideration the two things which seem to be outstanding in the best thought of the profession today: the periodic examination of the apparently well; and contract practice.

REPORT OF THE TREASURER

EDWARD D. LECOMPTE

October 1, 1925, to May 6, 1926

Receipts

September 30, 1925, amount in checking account at National Copper Bank			$2,604.84
Delinquent dues for 1925 received from component county societies		30.00	
Dues from members for the year 1926 received from component county societies as follows:			
Salt Lake County	$1,089.20		
Boxelder County	40.00		
Cache County	70.00		
Carbon County	60.00		
Uintah County	35.00		
Utah County	150.00		
Weber County	210.00	1,654.20	
From the Committee on Post-Graduate Work		928.47	
Total receipts for period			$2,612.67
Total			$5,217.51

Disbursements

Expenses incident to the 1925 annual meeting and the post-graduate course:			
Entertainment of guests, hotel bills, etc., in Logan, Ogden, and Salt Lake	$419.95		
Printing of programs, etc	99.45		
Stenographic and clerical work, including report of House of Delegates, 1925 meeting	139.94		
Telegrams	3.15	662.49	
Office of the secretary	299.82		
Office of the treasurer	30.01		
Office of the editor	56.00		
Office of the delegate to A. M. A.	150.00		
Gift to Dr. William L. Rich, ex-secretary	67.50		
Floral bills	10.00		
Postage and telegrams re the 1926 meeting	18.00		
Councilors' fees, traveling, etc	12.45	643.78	
Total expenditure for period			1,306.27
Balance in checking account, May 6, 1926			$3,911.24

Savings Account

Sept. 30, 1925. Savings Account No. 18,973 in National Copper Bank		$1,451.09	
Oct. 1, 1925. Interest on Savings account	$28.83		
April 1, 1926. Interest on Savings account	29.64		
Nov. 16, 1925. Bond coupons	6.36	64.83	
Total in savings account			$1,515.92

Recapitulation

Amount in checking account, National Copper Bank, May 6, 1926	$3,911.24
Amount in savings account, National Copper Bank, May 6, 1926	1,515.92
Total in checking and savings account	$5,427.16
I also carry for the Association three bonds of the Second Liberty Loan, with coupons attached thereto, Nov. 1, 1926, to Nov. 1, 1942	300.00
Total assets of Association	$5,727.16

REPORT OF THE COUNCIL

The following report of the Council was read by the secretary, Doctor Steele:

In accordance with the recommendation of the House of Delegates at its 1925 session, action was taken by the Council during the year on the following matters:

First: An appropriation of $150 per year was allowed to help defray the expenses of the delegate of the Association to the meeting of the A. M. A.

Second: Fifty dollars per year was allowed the associate editor for office expenses.

Third: The salary of the secretary was made $250 per year.

Fourth: An Elgin watch, together with a chain and knife, was bought for William L. Rich, former secretary, as a token of our appreciation of the service he rendered the Association during his incumbency.

During the year it was decided that additional stenographic work was necessary at times and $10 per month was appropriated for the use of the officers for this work.

The A. M. A. has been desirous of having more uniformity in the Constitution and By-Laws of the state societies, and sent a copy of proposed constitution and by-laws for our approval. After close consideration we have decided the Constitution and By-Laws submitted by the A. M. A. (with some necessary changes to fit our particular needs) would be an advantage to the Utah State Medical Association; and are therefore submitting to the House of Delegates at this session for its consideration this new constitution and by-laws, with the recommendation from the Council that it be adopted.

The Council believes that in the selection of a president of our Association that too much stress be not laid on the necessity of electing a president because of geographical reasons, but to elect for president the man who is likely to prove to be the best man available at the time, regardless of where he lives, thus giving the Association the strongest man possible for president each year.

President Gibson stated that in line with the report of the Council the new constitution and by-laws which was to have been presented at this meeting, could not be presented, owing to a series of accidents, until the meeting of the Association next year.

REPORT OF DELEGATE TO A. M. A.

E. M. NEHER

The A. M. A. House of Delegates was called to order by Speaker Frederick C. Warnshuis, who presided with his usual dignity, this being the fifth time he has served so efficiently as chairman. After the report of the Credential Committee, Speaker Warnshuis delivered his address. He stressed the importance of our position as delegates, urging us in all cases to place the collective good above individual and selfish greed. He praised the Board of Trustees for their untiring efforts and great sacrifice of time for the good of the Association. He further stated that the House of Delegates had at former meetings clearly defined their position with reference to state medicine, contract practice and group practice. Notwithstanding this action, there are evidences in many communities of tendencies toward rapidly growing development of these types of practice. He suggested that some type of disciplinary measures be passed for the benefit of the offenders. At the conclusion of his address, the speaker announced the appointment of the Reference Committee. Your Association has honored your delegate, being appointed a member of the Committee of Rules and Order of Business.

President William D Haggard addressed the House of Delegates on the topic of "Periodic Health Examinations." He stressed its importance as one of the greatest preventive medicine measures in early detection of precancerous lesions and insidious diseases of the vital organs. The physician reallly comes into his own as a true adviser of the social, mental and physical welfare of his patients. He made several pertinent suggestions as to how we should promote and encourage periodic health examinations, as follows:

1. Each physician should have in his waiting-room blanks for the physical examination, including the history which should be filled in by the patient. A suitable placard should be placed over the blanks, stating "Regular physical examinations promote better health and longer life." A sample blank is submitted herewith. Also, "The Manual of Suggestions for the Conduct of Periodic Examinations of Apparently Healthy Persons" should be in the hands of every physician. A copy is submitted herewith. In several states these copies have been purchased from the A. M. A. and presented to each member.

The president further suggested that the importance of periodic health examinations should be stressed in our local societies and state associations, and popularized through such lay organizations as churches, women's clubs, lodges, and the press. *There can be no objection to sending a notice through the mail notifying your patients when it is time to return for subsequent examinations.*

President-elect Wendell C. Phillips gave an interesting address extolling the achievements of the medical profession since the great war, and pointing to the fact that the members of the A. M. A. are the leaders today in world medicine.

The report of Secretary Olin West brought out some interesting facts, as follows: On March 1, 1926, the membership numbered 91,729, the largest in the history of the organization. However, the ninth Medical Directory lists nearly 150,000 doctors in the United States, and 505 physicians in our state, with only 357 as members of the State Association. Here is an opportunity for us to do missionary work and secure a greater membership. The Board of Trustees reported the gross earnings of the publication of the Journal as $1,222,000 with a net profit of $411,000. The advertising department was responsible for $680,000 of the income.

The circulation of "Hygeia" has increased from 30,000 copies last year to over 40,000 copies this year. However, this Journal is still published at a loss of over $5,000, which compares favorably with a loss of over $40,000 the previous year. It is interesting and yet chagrining to note that only seventy physicians of our state are subscribers to "Hygeia."

Several resolutions were introduced at the House of Delegates. The principal ones follow:

A resolution asking the Board of Trustees to investigate all phases of contract practice, and report with recommendations at the meeting next year.

A resolution recognizing the frequent evil of expert testimony in insanity cases, and asking the Board of Trustees to take the necessary steps to correct same.

A resolution requesting that medical students be permitted to receive credit for summer work and thus shorten their medical course.

A resolution asking the Board of Trustees to investigate the entire nursing question, with a view of increasing the nurses in each state.

The following officers were elected: Jabez N. Jackson of Kansas City was unanimously elected as president-elect. John O. McReynolds of Dallas, Texas, was chosen vice-president. Warnshuis was again unanimously chosen as Speaker of the House, and Olin West as secretary of the Association. Washington, D. C., was chosen as the meeting place next year.

Only a little over 4000 members were registered at the meeting, and of this number nearly 3000 were attending the meeting of the A. M. A. for the first time.

We cannot be too loud in our praise of the southern hospitality extended us. This, coupled with the splendid exhibits and the interesting scientific sessions, made the meeting a most pleasant and profitable one.

REPORT OF COMMITTEE ON SCIENTIFIC WORK

C. L. SHIELDS, *Chairman*

This committee has had several meetings separately, and several with the president and the Council, at the last of which the dates for the annual meeting of the Society were set for May 6, 7, and 8.

Leading physicians were communicated with by mail and telegraph, with the result that we have presented to the Society a very fine list of speakers. The following have consented to come: H. Gideon Wells, Edmund Jacobson, Leo P. Bell, Robert Coffey, Roger S. Hubbard, J. P. Pratt, Charles C. Tiffin, E. P. Sloan, A. J. Carlson.

In our opinion this should be one of the finest educational opportunities ever afforded Utah medical men.

COMMITTEE ON EDUCATION AND POST-GRADUATE WORK

GEORGE F. ROBERTS, *Chairman*

Your committee on post-graduate work decided to eliminate from the state meeting the post-graduate work and have two separate and distinct meetings. The post-graduate work will probably be given in September; the exact date has not yet been set. Our program has not been definitely settled. We have a partial promise of Doctor Lilienthal, chairman of medicine at Columbia University, New York. C. H. Mayo is giving us a partial promise that he will be here. It is our plan to have just two men, one in medicine and one in surgery, and conduct the clinic probably in the early part of September.

Committee on Health and Public Instruction, Advisory Committee on Hospitals, and Committee on Professional Welfare and Ethics did not submit reports.

COMMITTEE ON NECROLOGY

T. A. FLOOD, *Chairman*

The death rate among members of this Association during the past twelve months has been materially less than in former years.

George Edgar Robison, born at Fillmore, Utah, August 3, 1869, the son of Joseph V. and Martha Jane (Olmstead) Robison, died of pneumonia on February 10, 1926, following an injury consisting of a compound fracture of the humerus, and internal injuries causing gastric hemorrhage incident to a fall two weeks previously. Funeral services were held at his former residence in Provo, Utah, under the auspices of the Masonic Order, Story Lodge No. 4, of which he was a member. He was recognized as a capable physician and surgeon in this community and in Provo, his former residence, and having specialized in roentgenology he became prominent in his chosen field of work.

Doctor Robison received his preliminary education in this state and then attended the College of Physicians and Surgeons of Baltimore, from which school he was graduated with honors. From 1898 to 1901 Doctor Robison was associated in the practice of medicine at Provo with Dr. S. H. Allen, who later took up his residence in this city. While living at Provo, Doctor Robison had held the position of city physician and also county physician of Utah County, and was one of the founders of the Provo General Hospital. In May, 1891, Doctor Robison married Miss Ella Smoot, daughter of the late A. O. and Diana Eldredge Smoot. He taught in the public schools of Provo until 1894, when he took up the study of medicine. Mrs. Robison died in October, 1916. Several years later Doctor Robison married Miss Nellie Jones of Kansas City who survives him, the other surviving members of the family being two sons by his first marriage, namely, Dr. Arnold Robison and Joseph S. Robison, both of Provo.

Doctor Robison was a member of the Radiographical Society of North America, and the first district counselor of the Society for Utah and the surrounding states. He was also a member of the Salt Lake County Medical Society, the American Medical Association, and the Utah State Medical Association, of which he was president from 1919 to 1920.

Dr. Harvey Coe Hullinger, born in Ohio, December 2, 1824, died at the age of 102 on January 29, 1926, at Vernal, Utah, the oldest practicing physician in the state of Utah and probably also the oldest resident of Utah. He was graduated from a medical college in Columbus, Ohio, in 1852. Funeral services were held at his residence, with Witbeck Post No. 11 acting as guard of honor. A squad of World War veterans fired a salute over his grave, as Doctor Hullinger had been one of the first to answer Lincoln's call for volunteers in 1861.

After the Civil War, Doctor Hullinger established his residence in Big Cottonwood, where he also resumed the practice of medicine. Later he moved to southern Utah, and in 1883 took up his residence in the Uintah Basin, where he lived until his death, a period of forty years.

The following reported deaths were rather meager in detail, owing to the fact that these physicians had been more or less out of touch with the profession for some time prior to their death:

Dr. Charles P. Hough died at the age of 81 in Missouri. Doctor Hough was a resident of this city for six years. In 1902 he returned to his home town, Jefferson City, Missouri.

Dr. Alexander William Shields died recently at Huntsville. Doctor Shields practiced in Ogden for a period of fourteen years.

ADVISORY COMMITTEE TO STATE INDUSTRIAL COMMISSION

RALPH C. PENDLETON, *Chairman*

Inasmuch as all types of injuries and many complex problems and situations confront each new committee; and

Inasmuch as we find that many doctors over the state and in Salt Lake City do not understand some phases of the present Industrial Law; that many of the records before the Commission and your committee are incomplete; that some cases have been incompletely treated and in some cases it was felt that further consultation might have aided the patient; that at times claims of excessive charges on the part of physicians come unnecessarily before your committee to be passed upon; that where cases come up months and even years after treatment by the original attending physician, and on account of incomplete records and reports, conflicting statements of patients and friends, a lack of inability in the short time afforded us properly to learn details of co-operation on the part of the patient, difficulties of handling a case, mentality of patient and other systemic conditions affecting the patient, we are handicapped in giving the best advice without these details being furnished.

We therefore make the following suggestions, some of which have been put into effect already and many of which doubtless have been made by previous committees:

That any doctor doing industrial work familiarize himself with all provisions of the present Utah Industrial Law.

That where possible and convenient each injured man be allowed to choose his own medical attention.

That where there is any doubt as to the diagnosis or treatment that consultants be called in just as we do with other patients. In each case the insurance carrier should be given due notification.

That where there is a major or prolonged injury, supplemental reports be made to the insurance carrier at frequent intervals as provided by law.

That where healing is retarded by the presence of foci of infection, such as teeth, or tonsils, such be cleared up, even though they existed prior to the injury. In each case this should be done after a full understanding is arrived at with the insurance carrier.

That in case of claims of excessive or nonlisted fees, every effort be made for the attending physician and carrier to arrive at a fair settlement, so that your Medical Advisory Committee will be called upon to arbitrate only such bills as the carrier and physician cannot agree upon.

That all reports, including preliminary, supplemental and final reports, be made in triplicate so that the Industrial Commission, the insurance company, and yourselves may each have a written record for future reference.

That in case of extraordinary care or unusual circumstances, a full written report of such be made upon the final report blank in the space provided.

That a final report be not sent in until all the conditions are surgically healed or the patient's condition fixed.

That in no case should the Medical Advisory Committee be used as a free consultation board, but that where there is a question of diagnosis, further operative procedures, massage or care, that competent consultation be procured (again, after conferring with the carrier). And only in case where the Industrial Commission cannot order certain procedures to be carried out because of lack of their own medical knowledge or of disagreement among consultants; that the Medical Advisory Committee then advise them what further operative treatment or care they should select.

That members of your committee also advise the Industrial Commission what per cent of permanent disability is present or whether any disability is present, so that the Commission can make accurate and fair awards.

That new members of your Advisory Committee be made familiar with these few well understood facts so that they can better perform their duties.

Recently there has been instituted a system of appointing one new member every two months to serve for a period of six months. This gives the Commission, the medical profession, and the injured man a committee which constantly consists of two experienced men, and we feel that this rotating committee will enable them to give more fair and more accurate advice to the Industrial Commission.

The members of the Industrial Commission wish us to thank the members of the medical profession for their splendid part in past years in enabling them by their advice to carry out fairly and intelligently the provisions in the Act.

On the whole we feel that the Act as it now functions is a splendid means of handling the many claims and disputes arising out of the accidents which happen in industry.

Meetings are held every Friday at 11 o'clock a. m., and we take this opportunity to invite any members of the State Association to attend these meetings when convenient and learn at close hand the above mentioned problems with which we have to deal.

ADVISORY COMMITTEE TO THE MEDICAL DEPARTMENT, UNIVERSITY OF UTAH

F. A. GOELTZ, *Chairman*

A majority of the committee visited the university on April 28, 1926. The building and equipment were inspected and several improvements were noted. The library, while not complete, has been enlarged.

The department of gross anatomy has been improved by the addition of models, charts, complete sets of bones, dissected specimens, microtome, microprojector, and other laboratory equipments, and the installation of a compressed air system for the demonstration of fascial layers and the inflation of hollow organs. The department of miscroscopical anatomy has been supplied with sufficient microscopes, so that every student has one; the course of study is ample.

The pathological department is still in need of better facilities for the preservation and demonstration of gross specimens. Fresh operative specimens are received daily from the hospitals of the city. These are sufficient in number and variety, so that each day the students receive instructions and have the opportunity to study conditions just as they appear at the operation.

The improvements on the fourth floor of the medical building have been completed. Proper rooms for the care and observation of animals, an animal operating-room, rooms for experimental pharmacology and physiology and pharmacology laboratories equipped with hot and cold water, electricity, gas and compressed air and special dissecting rooms have been provided.

A study of the curriculum shows that three years instead of the average two years of pre-medical work is required; that the required amount of lecture, classroom and laboratory hours be equal to that of the best schools in the country.

We are glad to see four graduate practitioners availing themselves of the opportunity afforded by the university of doing some special work and study in anatomy and dissecting a cadaver. This opportunity should be brought to the attention of our members and they be informed that the medical faculty is prepared in equipment and personnel, and are more than willing to help us in our problems in review and research.

We suggest that as soon as practicable that none but medical classes and instruction be given in the medical building, and that when members of the medical faculty lecture or give instruction to nonmedical students that this be done in other buildings.

We find there is need of additional equipment and personnel in the various departments; that the heads of these departments recognize this fact, but are of necessity limited by the amount of money appropriated by the legislature for the university.

The suggestions and recommendations that we make are impossible until such time as the legislature realizes the growing demand on the university in all its departments; that the university finds itself hampered and embarrassed to carry on its work until it is provided with sufficient funds for new buildings, equipment, and personnel.

Therefore we suggest that our association, representing the medical profession of the state, and desiring that the medical school be placed on the highest standard, recognize our obligation as citizens, and that we go on record to do all in our power to help the university authorities to secure adequate appropriations, and to attain this end we recommend that the House of Delegates take suitable action to enlarge the duties and powers of the Advisory Committee, that they be instructed to cooperate with the university and other professional and lay organizations and our committee on public health and legislation, and to appear before the legislature to present the needs, particularly of the medical school, and also the entire university.

We thank the members of the faculty for their courtesy and frankness in discussing the needs and improvements in their department, and feel that they should be commended for the work they are doing. R. O. Porter, dean of the school, by his work, study, and interest, has brought the school to a high standard. Hampered by the lack of funds, he has done a splendid work in bringing about a very marked improvement.

The Faculty now consists of seven full-time professors and instructors and two part-time.

Revision of the Constitution—Joseph R. Morrell, chairman, reported that President Gibson had reported on the proposed changes in the constitution; that it would have to be taken up at the next meeting.

Miscellaneous or New Business—The following communication from former secretary William L. Rich was read by the secretary:

> "I wish to acknowledge the gift of a watch, chain, and knife, with appropriate engraving, from the Utah State Medical Association.
>
> Please convey to the Council and House of Delegates my heartiest thanks for the same.
>
> I shall always feel grateful for the profitable and ungrudging aid given me as secretary by members, various committeemen and officers."

The secretary stated that there had been received during the year numerous communications of questionable importance: several from Doctor Woodward's office regarding the amendment of the Narcotic Act, several with reference to the Veterans' Bureau, announcement of the American Legion regarding their meeting in Paris in 1927, several regarding cancer research; that the communications ran from one to twelve pages, and would take a considerable time to read to the House of Delegates. He followed his statement with a motion that they be not read at this meeting; but that anything of importance contained therein be taken up by the Council, and the others be received and filed. Motion seconded and carried unanimously.

E. M. Neher made the following brief statement, following it with motion which follows:

"I believe the members of our Association have not been paying enough attention to periodic health examinations and, as expressed by President Haggard at the A. M. A. meeting, the doctors are the first men that ought to be examined, and they are the ones who are really being neglected. The doctors could help one an-

other materially by examining each other. I move you, Mr. President, the adoption of the following resolution:

Resolution

WHEREAS, The American Medical Association realizes the great value of periodic health examination as one of the best means of preventive medicine; and

WHEREAS, The National Bureau of Health and Public Instruction have issued a splendid pamphlet giving suggestions for making such examinations, be it

RESOLVED, (1) that our secretary be instructed to purchase a sufficient number of copies of said "Manual of Suggestions for the Conduct of Periodic Health Examinations of Apparently Healthy Persons," and send one copy to each member of our Association; (2) that our Committee of Health and Public Instruction devise the best way and use the proper means to popularize periodic health examinations with the profession and with the laity; and furthermore be it

RESOLVED, That they make a report of their work at the meeting of the House of Delegates next year.

(Signed) E. M. NEHER
E. F. ROOT
HELMINA JEIDELL
Committee on Health and Public Instruction.

President Gibson announced that the resolution would be handed to the Reference Committee with the reports, and would be referred to the House of Delegates at the time the Reference Committee made its report.

Doctor Flood: If not out of order at this time, I should like to bring up the matter of compensation for the treasurer. I think very few of you realize just the amount of work connected with the treasurer's job. There is considerable correspondence attached to it, and practically every day a trip to the bank, etc. I think the very least we should pay the treasurer is $5 a month, and that the treasurer's compensation should be raised to $50 a year. I move that the House of Delegates recommend to the Council that the treasurer be paid $50 a year. Seconded and carried. Doctor LeCompte, the treasurer, asked what was to be done with the proceeds from the post-graduate work. Doctor Kahn stated this should be handled by the Reference Committee, and could be discussed at the time they made their report.

SECOND SESSION

House of Delegates met in adjourned session at 5 o'clock p. m. on Thursday, May 6, President Gibson presiding, Doctor Steele secretary. Roll call showed full quorum present.

The president announced that the first order of business would be the giving of reports not given at the noon meeting. That the first report would be that of the Committee on Public Policy and Legislation, John Z. Brown, chairman:

At the last session of the Utah State Medical Association the House of Delegates ordered its Committee on Public Policy and Legislation to confer with Senator Reed Smoot, who is chairman of the Finance Committee of the Senate, regarding the reduction of the Harrison Narcotic Tax from $3 to $1, and also ask for a change in the revenue law, which will permit physicians to deduct from their income tax reports the expense they have to meet in attending medical conventions and undertaking post-graduate work.

A meeting was arranged with Senator Smoot at which the above matters were considered. The Senator stated that he favors the reduction of the Harrison Narcotic Tax from $3 to $1, but does not see how the second proposition could be included in the revenue law. He said, however, that a clause might be inserted which would favor those physicians of limited income, say up to $2500 per year. The Senator further said that he would confer with Secretary Mellon of the Treasury Department and see what could be done before final action is taken.

The committee promptly reported the proceedings of this conference with Senator Smoot to Dr. William C. Woodward, secretary of the Bureau of Legal Medicine and Legislation of the A. M. A. at Chicago, under whose immediate direction we continued our efforts during the time Congress had under consideration the present revenue law.

In October Doctor Woodward and his committee went down to Washington and met with Chairman Green and the members of the Ways and Means Committee of the House of Representatives as well as with the Finance Committee of the Senate.

While this was going on, Sol G. Kahn received the following letter from Earl C. Sage, M. D., Omaha, Nebraska:

"We are reliably informed from Washington that your Senator Smoot is the person who is largely responsible for the present injustice done to the medical profession by not allowing them to deduct their expenses for attendance to medical societies, entertaining medical societies, attendance to domestic and foreign clinics, from their income tax. Will you kindly take this matter up with your society and bring such pressure on the Senator that he will change his attitude in this matter in order that justice may be done to the physicians."

A copy of this letter, together with copies of our correspondence with A. M. A. headquarters in Chicago, were sent to Senator Smoot at Washington, who on January 12 wrote us as follows:

"I am in receipt of your note of January 6, 1926, in which you enclose copies of letters, one to Dr. William C. Woodward, Chicago, Illinois, a letter from Dr. Earl C. Sage to Dr. S. G. Kahn, and a letter to Dr. Earl C. Sage, Omaha, Nebraska, signed by yourself.

Answering your note, will state that the Senate Finance Committee today approved of the reduction of the narcotic tax from $3 to $1, but no final action was taken upon permitting physicians to deduct from their income tax reports the expense they have to meet in attending medical conventions and undertaking post-graduate work.

I brought up the question of allowing the deduction to physicians whose income does not exceed $2500 per year. A number of the committee desired time to think over the proposition, and so the question of allowing the exemption held over for tomorrow or the next day."

Olin West, secretary of the A. M. A., also wrote:

"I am very grateful to you for your kindness in sending me copies of letters addressed by you to Doctor Woodward and Doctor Sage, and a copy of a letter addressed to Doctor Kahn by Dr. Earl C. Sage.

I am afraid that Doctor Sage was not quite as well informed as he might have been before he wrote his letter to Doctor Kahn. As you know, the Bureau of Legal Medicine and Legislation of the American Medical Association has been working persistently and earnestly on these matters of federal taxes. We have already received assurances that support will be given to the proposal to reduce the taxes levied under the Harrison Narcotic Act. We have not yet any definite basis for hope that income tax deductions of the kind referred to in your letter will be made possible during the present session of Congress. It is our purpose, however, to continue to hammer on this matter with the hope that we will finally win."

Also the following letter was received from Doctor West:

"I am very greatly obliged to you for your kindness in sending me a copy of the letter you received from Senator Smoot. Somehow I get the impression that Mr. Smoot is not very greatly interested in matters which affect the medical profession, but certainly his letter to you indicates that he is quite willing to give careful consideration to such matters as are presented to him by you and other Utah physicians.

You may depend on it that we are not going to let up on this proposition. It looks like it will be a long hard fight and it may be that we will lose in the end, but nevertheless we propose to keep on trying. The only suggestion that I can offer is that Utah physicians shall follow the same method of procedure."

The result of the efforts of the profession has been the reduction of the Harrison Narcotic Tax from $3 to $1.

Your committee has been gratified with the present tendency toward decentralizing our government activities, permitting the states to more definitely regulate their own affairs. Chief among these working to this end are Secretary Hoover and President Coolidge.

The Collector of Internal Revenue was asked how much money went from Utah taxes in support of the Government last year, and he said that income tax and inheritance taxes amounted to a little over $3,000,000. At the time the war was on we used to pay $10,000,000 to the United States Government, but it has been gradually reduced. Two years ago we paid $4,000,000, and this last year it was $3,000,000. The State Road Commission said last year they spent $2,000,000 on roads under the

Sheppard-Towner Bill $1,208,726.04 from the state, matched against $1,208,726.04 from the Government—a fifty-fifty proposition. The nation says they will dig up 50 per cent if we will dig up 50 per cent. Where does Uncle Sam get this money? Why, from us, of course. And leading statesmen think the Government has gone too far in regulating state matters.

Another feature is the work of the Committee on Public Health and Legislation of the Salt Lake County Medical Society. At a meeting in December a resolution was adopted asking the committee to investigate the Utah Public Health Association. This at the request of the Utah Public Health Association itself. The committee worked on this proposition for several months. They had not gone very far until they found that they would have to go beyond Salt Lake County in their investigation. Letters were sent both East and West, both to the secretaries of the State Boards of Health and also to the secretaries of the Anti-Tuberculosis Associations, and the committee gained a lot of information. In a great many instances they found there was friction between the voluntary health organization and the regular state organization. This condition obtains in this state today. The Salt Lake County Medical Society adopted the report of the committee (a copy of the entire report being made a part of this report by our committee), and I desire to read the closing paragraph of that report to you, inasmuch as it would take too much time to read the entire report, which is quite lengthy.

This report is too long to publish, and was abstracted in the June issue of California and Western Medicine.—Editor.

The two paragraphs of this report recommended to the House of Delegates for adoption read:

We, your committee, recognize the value of volunteer health organization work and are not disposed to discourage it as such. We recommend that all voluntary health organizations in this state should be supplementary to the legally constituted State Board of Health and that they should work in co-operation with and under the direction of the State Board of Health; that the funds which they receive through the sale of seals or other sources should supplement the funds appropriated for health work by the state legislature.

Until such time as this can be consummated, we recommend that the medical profession withhold their moral and financial support to any and all volunteer health agencies.

Chairman Calonge added to the report of the Committee on Professional Welfare and Ethics the following complaint by Dr. Roy Groesbeck:

"Friday, April 30, 1926, Mr. D. D. Meacham, an industrial case from Hanksville, Utah, came to my office, complaining of a swelling in the right groin, which was a right inguinal hernia, and which he claimed to have been acquired in January under his present employer. No report of the case had been made, and he came without a report from his employer. He desired an operation, but did not want it done unless compensation was granted.

I called Mr. Caine of the State Insurance Fund on the telephone, and he had me send Mr. Meacham to the Commission at 10 a. m. Saturday, May 1, 1926. I told Mr. Meacham that my office hours on Saturday were from 11 to 1 o'clock, and asked him to return to my office immediately following the Commission's decision.

He did not return, and at 1 o'clock I talked to Mr. Iverson, who said the case had been passed upon and granted operation. Mr. Meacham did not return to my office.

Tuesday, May 4, I learned Mr. Meacham was in the L. D. S. Hospital scheduled for operation. I visited him in the ward at the hospital and asked him how he had arrived at the hospital under other care. His words were that he had been given a card to the Salt Lake Clinic and advised to see Dr. R. T. Richards. He also stated that he had the card in his pocket in the locker, and if I would get it he would show it to me.

I have that same card in my possession bearing this instruction to the Salt Lake Clinic, their address, and their names in part.

The same morning, May 4, I met Dr. J. E. Tyree, who was scheduled to do the operation, and told him the facts as I have presented them to you above, and asked him what was his opinion.

Doctor Tyree claimed that he did not know that I had seen the case, but said that had he known, it probably would not have made any difference; that he would have gone ahead and operated anyway.

The object of this complaint is:

1. Under what statutes does the State Insurance Fund and the State Industrial Commission advise who should operate?

2. Knowing the facts as I presented them to Dr. J. E. Tyree, under what code of ethics does he feel obligated to operate?"

President Gibson ruled that this report be handed to Chairman Kerby of the Reference Committee and that it be included as part of the report of the Committee on Professional Welfare and Ethics.

THIRD SESSION

Friday, May 7, 1926

Roll call of delegates: quorum present. Moved by Neher that Bash be seated as delegate from Carbon County, inasmuch as the regular delegate was not present.

Kahn moved that all the alternates present from Salt Lake County be seated as delegates, inasmuch as there were more regularly appointed delegates absent than there were alternates present. Seconded and carried. Moved by Calderwood, seconded by Hampton, that Aird, the alternate from Utah County, be seated as a regular delegate. Carried.

REPORT OF REFERENCE COMMITTEE

J. P. KERBY, *Chairman*

Your Reference Committee has held two meetings, at which the communications referred to it were considered.

It is the belief of the committee that when the post-graduate fund was started it was the intent that the net receipts from each year should accumulate in a separate fund, the Post-Graduate Fund.

Your committee recommends that the treasurer's report be prepared in such a way as to show the total amount in the Post-Graduate Fund, and that the net proceeds of each year's post-graduate work be added to this fund, including the $928.47 from last year's fund. It is recommended also that the expenses of the post-graduate work of 1925 be paid out of this fund.

We recommend the adoption of the report of the secretary.

We recommend the adoption of the report of the Council, with the exception of that part relating to the proposed change in the Constitution and By-Laws, and that this part of the report be considered by the House of Delegates after it has had an opportunity to hear the proposed revisions.

We recommend adoption of the report of the delegate to the A. M. A. and of the resolution presented by him.

We recommend the resolution of Dr. T. A. Flood to increase the salary of the treasurer to $50, and recommend that it be forwarded to the Council requesting favorable action thereon.

We recommend that the House of Delegates adopt the recommendations of the Advisory Committee on the Medical Department of the University of Utah.

In order that closer co-operation may exist between this committee and the Committee on Public Policy and Legislation, we recommend that the chairman of the latter committee be as officio a member of the Advisory Committee on the Medical Department of the University of Utah.

We recommend that the report of the Committee on Scientific Work be accepted and a vote of thanks extended to the committee.

We recommend the adoption of the report of the Conference Committee of the Industrial Commission. In this connection it is recommended that the secretary of the State Association be directed to request the State Industrial Commission to furnish a copy of the law relating to industrial cases, and of the approved fee schedule to each doctor in the state.

We recommend the filing of the report of the Committee on Public Welfare and Ethics.

We recommend the acceptance of the report of the Committee on Necrology, and that appropriate resolutions be sent to the families of the deceased members.

We recommend that the report of the treasurer be accepted.

The committee considered the communication of Roy

Groesbeck in regard to certain practice of the State Industrial Commission and the allegation of unethical conduct on the part of a member of the Association. It is the opinion of the committee that Groesbeck should take up the matter of unethical conduct with the Salt Lake County Medical Society. It is contemplated that a resolution will be introduced in the House of Delegates at this meeting that will attempt to prevent the occurrence of such a practice as is the foundation of Groesbeck's complaint.

We recommend the adoption of the report of the Public Policy and Legislation Committee.

The committee has considered the complete report of the Committee on Public Health and Legislation of the Salt Lake County Medical Society and, while it does not feel at liberty to recommend the adoption of the entire report because of the limited opportunity for analysis of it, it does concur in the recommendations in the two final paragraphs and recommends the adoption of these two paragraphs.

The committee further recommends that your Committee on Public Policy and Legislation be directed to initiate the necessary measures for securing full co-operation between the State Board of Health and all volunteer health organizations.

We recommend that the report on post-graduate instruction be accepted and filed.

Moved by John Z. Brown, seconded by J. C. Landenberger, that the report of the Reference Committee be adopted.

Kahn moved a substitute for Brown's motion, that we take the report of the Reference Committee up *seriatim*. Seconded by E. F. Root.

After further discussion, President Gibson announced that Kahn's substitute motion that we take the report of the Reference Committee up *seriatim* was before the House. Motion voted on and lost.

President Gibson then called up the original motion that we accept the report of the Reference Committee which, after further discussion, was adopted.

Kerby: For some time a number of men have complained about the practice they claim exists in the relations of the doctors and the Industrial Commission. They claim that their patients are referred to specialists—eye and ear specialists—for examination without their knowledge and that in many cases the patients are operated on without their knowledge, and the Advisory Committee to the Industrial Commission has realized that in some cases there was possibly a just reason for some of these practices. Doctor Pendleton, as chairman of this committee, has in mind attempting to overcome this practice, and I should like to introduce a resolution that covers this matter, inasmuch as it is referred to in the paragraph of the report of the Reference Committee wherein Doctor Groesbeck's letter is embodied.

RESOLUTION

It is the opinion of the House of Delegates of the Utah State Medical Association that whenever an insurance carrier desires other medical attention or advice than that of the attending physician, such consultation should be secured by the attending physicians, and that the practice of referring compensation cases to other physicians than the one in attendance without his knowledge, should be discontinued.

Upon motion by G. F. Roberts, seconded by L. J. Paul, the resolution was adopted.

After considerable discussion about funds, Roberts moved that hereafter when the state meeting and the post-graduate course come together the state funds pay the bill; that when they come separate the funds of the post-graduate course come out of the post-graduate fund. Motion seconded by John Z. Brown.

Following full and free discussion, the motion was carried. Meeting adjourned.

FOURTH SESSION

Roll call; quorum present.

Moved by Kahn that Beer be seated as a delegate from Salt Lake County Society. Seconded and carried unanimously.

President announced that the first order of business would be the election.

President-Elect—E. I. Rich of Ogden nominated E. H. Smith of Ogden. Seconded by R. R. Hampton. E. F. Root nominated E. M. Conroy of Ogden. Seconded by W. F. Beer. F. F. Fisk of Price nominated by Bash.

Hampton moved that inasmuch as it takes a majority to elect, that the three names be balloted on and the lowest candidate be dropped on the second ballot. Motion seconded and carried. This was done, with the final result that Smith of Ogden was elected president-elect.

Conroy moved that the vote for Smith as president-elect be made unanimous. Seconded by Bash and unanimously carried.

Frank K. Bartlett of Ogden moved that Conroy be first vice-president. Seconded by Beer.

Moved by F. H. Raley that the rules be suspended and that Bartlett be elected as first vice-president by unanimous vote. Seconded and carried.

Unanimous vote of the House was cast for E. M. Conroy as first vice-president, whereupon the president announced that E. H. Smith of Ogden was elected president-elect, and E. M. Conroy as first vice-president.

Second Vice-President—F. F. Fisk of Price was nominated by R. A. Pearse of Brigham City. Seconded by W. F. Beer.

Joseph Jack moved that the rules be suspended and that Doctor Fisk be elected as second vice-president by unanimous vote of the House. Seconded and carried, and the secretary cast the unanimous vote of the House for Fisk. The president thereupon announced that Fisk would serve as second vice-president during the next year.

Third Vice-President—R. A. Pearse of Brigham City nominated by Homer Rich. Seconded by E. M. Neher. Moved by Kahn that the rules be suspended and that Pearse be elected by unanimous vote of the House. Seconded and carried, and the secretary cast the vote of the House for R. A. Pearse for third vice-president. Whereupon the president announced that R. A. Pearse would serve the Association as third vice-president for the coming year.

Treasurer—E. D. LeCompte, the present treasurer, was nominated by George F. Roberts. Seconded. Beer moved that the unanimous vote of the House be cast for LeCompte for treasurer. This was done, and the secretary cast the unanimous vote for LeCompte; whereupon President Gibson announced that LeCompte would continue as treasurer.

Councilor for the First District—Three-year term.

President Gibson announced that Smith, the councilor from the First District, had left the state and that Morrell had been appointed by the Council to fill the unexpired term; that Morrell was now filling the office and that his term would soon expire.

Bartlett of Ogden nominated Whitlock of Layton. Seconded.

E. I. Rich of Ogden nominated R. A. Pearse. Seconded.

Matter was brought up of a man holding two offices, inasmuch as R. A. Pearse had just been elected as third vice-president.

Joseph R. Morrell nominated by William L. Rich. Seconded.

President ruled that Pearse could not hold two offices, and Pearse asked that his name be withdrawn. Ballot was taken on Morrell and Whitlock, with the result that Morrell was elected. President Gibson thereupon announced that Morrell would serve as councilor from the First District for the coming three years.

Delegate to A. M. A.—Neher nominated Kahn; seconded. Kahn nominated Neher; seconded. Kahn withdrew. Neher asked that his name be withdrawn. Root nominated by Roberts. Root asked that his name be withdrawn in favor of Doctor Neher. Beer moved that nominations close and the secretary be instructed to cast the vote of the House for Neher. Seconded and carried, and the secretary thereupon announced that E. M. Neher was elected as delegate to the A. M. A.

Alternate Delegate—Roberts nominated Root; seconded. Neher nominated Kahn; seconded. Kahn withdrew his name, and Beer moved that the secretary be instructed to cast the ballot for Root as alternate delegate. Seconded and carried. Whereupon the president announced that Root would serve as alternate delegate to the A. M. A.

Selection of Place of Meeting—Landenberger moved

that the next yearly meeting be held in Salt Lake City because the Salt Lake man holds the presidency. Seconded and carried.

Rich moved that all members of the House of Delegates receive copies of all the reports thirty days before the meeting. Seconded by M. M. Critchlow.

Kirtley moved an amendment to Rich's motion by inserting fifteen days instead of thirty. Seconded by Neher, accepted by Rich.

Kahn offered a substitute motion that we follow the rule of having committee reports read to the House of Delegates and instead of having a Reference Committee that they be passed upon by the House, and see how it works out. Then when we get our new Constitution and By-Laws, if we desire to make a change we can do so. Motion seconded and carried.

The following letter from the Auxiliary Salt Lake County Medical Society was read by the secretary:

"In response to a request from a number of the ladies of our auxiliary organization, we are sending this communication, hoping that some action will be taken regarding it.

Two years ago, upon request of Dr. J. C. Landenberger, a few of the doctors' wives met together and organized what is now known as the Auxiliary to the Salt Lake County Medical Society. The name seemed to be the only logical one, as the organization effected comprised only Salt Lake County membership.

It has been reported that our Utah organization has no listing in the National Auxiliary Association. We shall esteem it a favor if the State or County Medical Association will take some action relative to the status of the women's organization in order that we may have a place in the national program, and also because we have been calling ourselves an 'Auxiliary' to the Salt Lake County Medical Association. A delegate from the national organization is expected in Salt Lake City about next September to assist in further organization."

After extended discussion, a motion was made and carried that the communication be handed to the Salt Lake County Medical Society to be acted upon, and that all the other county societies be included in forming a state organization.

On motion, duly seconded and carried, meeting adjourned *sine die*.

Ankylosing Operations on the Tuberculous Spine—As a basis for his study, Leonard W. Ely, San Francisco (Journal A. M. A.), has collected the histories of the patients with tuberculous spines who were operated on in the orthopedic clinic of Stanford University during the last twelve years, and to them has added the histories of his private patients. There are those who think that they can cure spinal tuberculosis by exposing their patients to sunlight. Until about twenty years ago the nonoperative treatment, by plaster of paris, by braces and by frames in recumbency, was practiced almost universally by those who treated many cases of spinal tuberculosis. The main rule of treatment is to deprive the joint of function. The nonoperative treatment is uncertain, takes years of time at best, and almost always is followed by marked deformity. In the operative treatment all the work is done on healthy bone, and at a considerable distance from the tuberculous portion. Hence, no danger of secondary infection exists. There remains, then, only the direct risk of the operation. This is very real without a skilled anesthetist. With one, it is almost negligible. The patient should be anesthetized on his face in a comfortable attitude, with cushions arranged so that his breathing will be unimpeded. When the operation is finished, the patient is rolled carefully onto the ambulance, and remains flat on his back for about a week before his wound is dressed. He is kept in recumbency for six weeks, though he may lie on his side or on his face after the first week. After this, he wears a spinal brace for about six months. The Hibbs operation theoretically is better than the Albee, for the bony bridge, once formed, is permanent, while anything may happen to a graft, sooner or later. On the other hand, the Albee operation is excellent in an early case in which the disease seems to be localized in one or two vertebrae. It is quickly done, and is excellent for lumbar disease. Ely finds a heavy percentage of second operations following the Hibbs operation. The results of these operations, as to the deformity, are good. In cases with secondarily infected tuberculous abscesses, the outlook is not particularly promising, but cases of recovery are on record.

NEVADA STATE MEDICAL ASSOCIATION

A. J. HOOD, M. D., Elko.....President
HORACE J. BROWN, M. D., Reno.....Secretary and Associate Editor for Nevada

Washoe County Medical Society (reported by J. A. Fuller)—The meeting of June 8 was held in Doctor Fuller's office, President C. H. West presiding.

The medico-legal aspects of mental diseases were discussed by George H. Henry. He explained the development of our present law from the old English law of 200 years ago. He touched on the injustice of the testimony of many so-called alienists and suggested several possible remedies, chief among which was, that the study of law should include a study of mental diseases; or that there should be special courts for the trial of the alleged insane; or that a specially trained State Commission should be formed for taking care of such cases.

Judge George Bartlett in discussion remarked that if the law was not sufficiently informed on medico-legal matters it was the fault of the medical profession.

J. L. Robinson spoke of the incompetence of much "expert testimony." Morrison suggested that the trouble was due to the fact that the witnesses were biased before they went on the stand. West thought the whole trouble was due to ignorance of mental disorders.

The application of A. L. Grover was read and placed in the hands of the censors. P. L. Robinson of Virginia City was elected to membership.

J. L. Robinson, R. H. Richardson and A. R. Dacosta, as a committee, prepared the following resolution, which was approved by the Society, regarding the death of A. Parker Lewis:

"Dr. A. Parker Lewis was born at Traes, Iowa, July 23, 1884, the son of James Henry Lewis. The family lived in Traes, where the father was a merchant, till the son was 7 years of age, when James Lewis took up government land in Kansas and became a farmer. Later they moved to Pomona, California, near which town he acquired an orange grove. In 1903 Parker Lewis entered Pomona College, later Stanford University, taking there a premedical course. He obtained his medical degree from the College of Physicians and Surgeons of San Francisco. He served with the Red Cross in the Philippines, and as quarantine officer when the bubonic plague visited San Francisco. He went to Alaska as physician-surgeon for a canning factory. Later he practiced in Sutter Creek, California, where on September 12, 1906, he married Margaret Payne. Two years later Doctor and Mrs. Lewis moved to Reno, and it was here, shortly after their arrival, that their only child, James, was born. Besides the widow and son two sisters survive, Sarah E. Lewis, professor of home economics at the University of Nevada, and Lucy M. Lewis, librarian of the Oregon Agricultural College.

In Doctor Lewis' death the medical profession, the community, and the state have met with a great loss.

Physiologic Effects of Spermatoxin—Robert M. Oslund, Chicago (Journal A. M. A.), shows that spermatoxins developed in the blood of the male animal have no effect on spermatogenesis or on mature sperm in the genital tract. Temporary aspermatogenesis found in some experiments is probably a consequence of general body reaction, to which tests are very sensitive, and not a specific reaction. The aspermatogenesis reported by various writers is too irregular in its appearance to be the result of specific antibody built up by regular procedure. It also appears quite probable that spermatoxins developed in the blood of the female animal have no effect on the natural response of its ova to sperm. General bodily reactions, especially the resulting anaphylaxis, cause abortion of ova and often of embryos, if the animals are pregnant. The delay of pregnancy occasionally found appears to be very short in duration and is probably caused by physical disturbances of the body rather than by antibody reactions.

MEDICAL, HEALTH AND HEALTH AGENCY NEWS

The Twentieth Semi-Annual Meeting of the California Northern District Medical Society Held at Colfax, May 27, 1926 (by John D. Lawson, secretary)—The morning session was devoted to a clinic on tubercular conditions by Robert A. Peers and C. D. Durand at the Colfax Hospital. A general outline of the methods of treatment was given by Peers to about forty members.

Following the morning session a luncheon was held at the Standard Oil Sanitarium, of which Peers is chief consultant.

At 1:30 p. m. a regular business session of the Society was held.

The following new members were admitted after a report by the Board of Censors: William L. Whittington, Luzerne B. Barnes, Rude, Robert Nichols.

A motion by Moulton, seconded by Bates, that dues should be raised to $1 per year, passed.

R. O. Schofield tendered an invitation to the Society to attend the Plumas County meeting to be held at Hobart Mills, July 17, 1926.

A vote of thanks was extended Doctor Peers for his efforts in making the meeting a success, and a vote of thanks was also extended the Standard Oil Company and their medical staff for the excellent luncheon held under the direction of Mrs. Cameron.

A reading of papers was begun by L. A. Emge, whose subject was "The Symptomatology and Diagnosis of Pelvic Varicose Veins in Women." Discussion opened by L. P. Bell and continued by O. F. Johnson, C. E. Schoff, and L. M. Drysdale. A second paper was presented by C. E. Schoff, the title of which was "Use of Bismuth in Treatment of Syphilides." Discussion was opened by O. F. Johnson. The last paper was presented by J. D. Lawson and J. Edward Harbinson. The subject of this paper was "Roentgen-Ray Treatment of Erysipelas." Discussion by O. F. Johnson and J. R. Snyder.

The secretary extended an invitation to the Society to hold the next meeting in Woodland in October as the guest of the Woodland Clinic. Schoff arose to a point of order, stating that each alternate meeting was to be held in Sacramento according to the by-laws. After some discussion on this subject the matter was left to the discretion of the president and secretary.

There being no further business the meeting adjourned.

University of California Medical School (reported by L. S. Schmitt, acting secretary) — Harold Amoss, B. S., M. S., M. D., D. P. H., D. Sc., associate professor of medicine at Johns Hopkins University Medical School, will serve as a visiting lecturer during the early part of the coming semester.

The following promotions are effective for 1926-27:

Alice F. Maxwell, B. S., M. D., from assistant professor of obstetrics and gynecology to associate clinical professor of obstetrics and gynecology.

Saxton T. Pope, M. D., from assistant clinical professor of surgery to associate clinical professor of surgery.

Margaret Schulze, B. S., M. S., M. D., from instructor in obstetrics and gynecology to assistant professor of obstetrics and gynecology.

Henry H. Searls, B. S., M. D., from instructor in surgery to assistant professor of surgery.

Miriam E. Simpson, A. B., M. S., Ph. D., M. D., from instructor in anatomy to assistant professor of anatomy.

Frederick Eberson, M. A., Ph. D., M. D., from instructor in medicine to assistant professor of medicine.

Francis S. Smyth, A. B., M. A., M. D., from instructor in pediatrics to assistant professor of pediatrics.

Bradford F. Dearing, M. D., from instructor in pediatrics to assistant clinical professor of pediatrics.

Frieda L. Kruse, M. D., from assistant in pediatrics to instructor in pediatrics.

Lloyd Hardgrave, M. D., from assistant in pediatrics to instructor in pediatrics.

Kunisada Kiyasu, A. B., M. D., from assistant in pediatrics to instructor in pediatrics.

Thomas E. Gibson, A. B., M. A., M. D., from assistant in urology to instructor in urology.

Ina M. Richter, M. D., from assistant in medicine to instructor in medicine.

Elizabeth A. Davis, B. S., M. D., from assistant in medicine to instructor in medicine.

Dorothy Atkinson, A. B., M. D., from assistant in medicine to instructor in medicine.

John J. Sampson, A. B., M. D., from assistant in medicine to instructor in medicine.

Robert Emmett Allen, A. B., M. D., from assistant in medicine to instructor in medicine.

Robertson Ward, A. B., M. A., M. D., from assistant in surgery to instructor in surgery.

Dudley Smith, M. D., from voluntary assistant in surgery to instructor in surgery.

Jessie L. P. Delprat, A. B., M. A., M. D., from assistant in medicine to instructor in medicine.

Forty-one graduate physicians from nearly every state on the Pacific slope registered for the graduate summer courses. These courses opened on the 7th of June and closed on the 3rd of July. They included courses in general medicine, surgery, pediatrics, circulatory diseases, gastro-intestinal diseases, x-ray, orthopedics, urology, eye, nose and throat, neuropsychiatry, pathology, laboratory diagnosis.

The new five-story 350 bed Providence Hospital in Oakland is nearing completion. The Sisters at the head of this great health-serving institution deserve praise for this undertaking, and the people of the East Bay region justly point with pride to this evidence of progress.

At a recent meeting of the Saint Francis Hospital Clinical Society Robert F. Kile discussed "Some Indications for X-Ray Treatments, Especially Deep Therapy," and L. B. Rogers, managing director of the hospital, discussed "Administration Problems."

Saint Joseph's Hospital, San Francisco, has started the construction of a new million-dollar hospital.

Mother-General M. Aloysia of the Franciscan Order of Sisters of the Sacred Heart, in charge of Saint Joseph's Hospital, turned the first spadeful of earth at the "ground-breaking" exercises. Archbishop Hanna offered the benediction and delivered the inaugural address.

The regular meeting of Saint Luke's Hospital Clinical Club was held on Thursday, June 3, the subject of the day's discussion being "Five Years of Deep Roentgen Therapy in Malignant Diseases," and the speaker, John M. Rehfisch. He stated that during the time mentioned (five years) upward of 800 cases had been treated, a large enough number, he felt, from which to get sufficient data to make an intelligible and interesting report, and one of considerable value not only to the roentgenologist, but to the referring physician as, with a few brilliant exceptions, the articles appearing in the general medical press have been misleading, the best x-ray articles unfortunately being segregated in the pure x-ray journals.

Deep roentgen therapy is essentially a biophysical one, the biological factor being much more important in therapy than is the physical one; yet a great deal more is known about the less important factor and practically nothing about the most important one. Advance, however, is being made in the solution of these problems, two or three recent researches having immediate practical value in the application of the method. Kok and Forlaender have done some work which is very illuminating as to the method by which it is most hopeful for us to attack our malignancies. They have shown that as much as six skin doses of x-ray applied directly to tumor transplants are not sufficient to prevent their taking; while a dose equivalent to but 4 per cent of one skin dose administered to animals previous to transplanting healthy

tumor grafts was sufficient to prevent successful transplantation. This would seem to be excellent experimental evidence, which is surely borne out by every clinical fact. We know that our results when successful are due not so much to direct tumor action as they are due to some general influence, in some sense an immunological influence on the organism. As a whole there was very little doubt in the speaker's mind that the caustic effect of the x-ray is a negligible factor in attempting tumor control. Murphy's work on the relation of lymphocytes and the lymphocytic tissue to tumor immunity is very important. Gaylord has told of the damaging effect of anesthesia on tumor immunity, and this may be a partial explanation of what has often been demonstrated that surgical interference is a very risky thing in a tumor, the infiltrative properties of which are under partial or complete control by x-ray.

Broad generalizations are entirely out of place in discussing deep therapy; the unlikely and the impossible persist in happening while the confidently expected refuses to occur. Every case is a law unto itself, being controlled by the rules of a biology which has not even commenced to be understood.

A number of lantern slides presented at the close of the lecture, and demonstrating the "before and after" of deep ray therapy, showed some remarkable results.

H. A. Rosenkranz (W. P. Story Building, Los Angeles) has evolved some urological history and examination forms which he will be glad to forward to anyone upon request.

The Pacific Coast Oto-Ophthalmological Society held its fourteenth annual meeting in San Francisco, April 26-28, 1926: Kaspar Pischel, San Francisco, president; Glen Campbell, Vancouver, B. C., first vice-president; E. M. Neher, Salt Lake City, second vice-president; Walter F. Hoffman, 817 Summit Avenue, Seattle, secretary-treasurer.

The meetings were well attended, a large program of excellent papers and discussions was rendered, and the social features were all that could be desired. At the business session the following officers were elected for the year 1926-27: Carroll Smith, Spokane, Washington, president; William Mellinger, Santa Barbara, California, first vice-president; Frank Burton, San Diego, California, second vice-president; Walter F. Hoffman, 817 Summit Avenue, Seattle, Washington, secretary-treasurer.

Examinations of candidates for entrance into the United States Public Health Service will be held at San Francisco, California, July 12, 1926.

Requests for information or permission to take this examination should be addressed to the Surgeon-General, United States Public Health Service, Washington, D. C.

The annual meeting of the Mid-Western Association of Anesthetists will be held October 11-14, 1926, in Kansas City, Missouri. Headquarters, Baltimore Hotel.

An interesting and attractive program is in the process of making. Any physician or dentist desiring to read a paper should send the title of his paper to the secretary, Ralph M. Waters, M. D., 425 Argyle Building, Kansas City, Missouri.

Local and county governments now maintain 471 hospitals, with 53,027 beds. City governments maintain 371 hospitals with 59,630 beds, and city and counties combined maintain sixty-nine hospitals with 7118 beds. Altogether, county and municipal governments combined support 911 hospitals having 119,775 beds, comprising 14.9 per cent of the entire bed capacity in the United States.—J. A. M. A.

CALIFORNIA BOARD OF MEDICAL EXAMINERS

Items of Interest by C. B. Pinkham, M. D., Secretary-Treasurer

Failing to agree on the third count, the jury hearing the case of John E. Beck, Tulare physician accused under a Federal Grand Jury indictment of violating the Harrison Narcotic Act, yesterday returned verdicts of not guilty in two of the three indictments.—Fresno Republican, May 11, 1926.

Proceedings to abolish both the Berkeley Chiropractic College and the Berkeley Chiropractic High School will be started at once by the office of Attorney-General U. S. Webb, according to announcement yesterday, upon the strength of information made out against the two institutions by the newly created State Board of Chiropractic Examiners.—San Francisco Chronicle, June 9, 1926.

The Grand Jury indictment against Dr. Charles E. Brown, Fresno physician, charging violation of the Harrison Narcotic Act, was dismissed today by United States Judge Paul J. McCormick on the recommendation of Assistant United States Attorney Albert K. Lucas. The recommendation came from Lucas on the ground that there was not sufficient evidence upon which to convict.—Fresno Bee, May 21, 1926.

According to the report of Special Agent Carter, Mrs. E. M. Coats, referred to as one of the most persistent violators of the Medical Practice Act in California, was recently again charged with violation of the law.

A new form of state license recently came to the attention of the Board of Medical Examiners when Professor K. Feige of San Diego requested a drugless practitioner certificate in California based upon a license issued to him by the "Oklahoma State Board of Combinathic Examiners" which entitled him to practice "combinathics," whatever that may be.

Charges against five dentists were heard yesterday by the State Board of Dental Examiners, with a view of determining whether their licenses should be revoked or suspended for alleged violation of the state laws regulating dentistry.—San Francisco Chronicle, May 28, 1926.

According to the San Francisco Call of May 13, 1926, Fong Poy, who we understand is also known as Fong Wan, has filed suit against Harry Henderson, Special Agent of the Board of Medical Examiners, for $10,000 damages. (See "News Items," June, 1926.)

Concha Gonzales was recently charged with violation of the Medical Practice Act, based upon alleged practice of medicine among the Mexicans.

W. J. Heinrichs, mentioned in the June issue of "News Items," was recently sentenced to pay a fine of $100 and serve ninety days in jail, jail sentence being suspended on payment of the fine, on the condition that defendant refrain from further violation of the Medical Act.

Rollie Jamison, mentioned in "News Items" for June as operating a Suggestive Therapeutic Clinic in Los Angeles, recently paid a fine of $100, following his plea of guilty of violation of the Medical Practice Act.

The Kinetic Drugless College (Chiropractors Incorporated) has recently been brought to the attention of the Board of Medical Examiners, based on allegations of irregularities in the issuing of diplomas.

M. T. Larkin, a Chirothesian, mentioned in the "News Items" of December, 1925, has again been arrested in San Diego, charged with violation of the Medical Practice Act. It is reported that "M. T. Larkin is a Chirothesian and claims that his license from the Chirothesian Church gives him the right to administer any treatment that is in accordance with his religious belief. . . . His women patients were first asked to remove all of their clothes; he then examines them by feeling with his hands. . . . In one case he is alleged to have used a carrot as a surgical instrument in the treatment of a woman who had been married fourteen years without having any children."

Franklin E. Kerr, M. D., D. O., referred to in "News Items" of May, 1926, some time since convicted of sending poisoned candy to his wife through the mails and sentenced to five years' imprisonment, has been denied a review of his case by the United States Supreme Court,

according to a press dispatch dated Washington, D. C., June 7, 1926. Doctor Kerr has been served with a citation to show cause why his license to practice in the state of California should not be revoked, and the hearing will take place at the coming July board meeting.

Dr. Charles Lee was given an indeterminate sentence of one to five years in San Quentin yesterday by Superior Judge Roche. Doctor Lee was convicted by a jury last week on a charge of performing a criminal abortion.—Francisco Chronicle, May 16, 1926. The records of the Board of Medical Examiners show no one by the name of Charles Lee licensed to practice in this state.

The American Medical Journal of May 15, 1926, published an interesting article relating the activities of certain alleged diploma mills, mentioning the Lincoln-Jefferson University and the University of Trinity College, both located in Chicago, relating that in slightly more than two years after September 16, 1920, 536 degrees of thirty-eight varieties in twenty subjects had been listed by the Lincoln-Jefferson University and its affiliated concerns.

Judge Arthur S. Keetch in Superior Court today ordered subpoenas issued for the appearance of Gertrude Torrance, 17, and her mother before him next Thursday following the statement by Dr. William H. Lochman, 80, charged with an illegal operation, that it was the second such operation he had performed. . . . Doctor Lochman was in court today for sentence, which was postponed.—Los Angeles Herald, June 3, 1926.

Dr. F. K. Lord, Modesto physician serving a 100-day term in the Stanislaus County Jail for selling narcotics, will regain his freedom in a $100 bail under a writ of habeas corpus granted yesterday by the State Supreme Court. Lord was found guilty on last January 21 and sentenced to serve one hundred days in lieu of $100 fine for selling five grains of morphine to Nellie Nash. . . . (San Francisco Examiner, June 8, 1926.) Prior mention of Doctor Lord's difficulties have appeared in "News Items" for March, May, and June.

Dr. H. A. McClelland, Turlock chiropractor and veteran of the World War, was yesterday ordered to Letterman Hospital, San Francisco, for observation as to his mental and physical capabilities. . . . McClelland was arrested here several weeks ago on a charge of passing a worthless check on Carl Salvar. . . .—Modesto News Herald, May 4, 1926.

Rupert E. McKibbon, M. D., formerly of Los Angeles, mentioned in "News Items," February, 1926, issue, has been cited to show cause why his license to practice in the state of California should not be revoked at the coming July meeting, based upon his record of conviction of violation of the Harrison Narcotic Act.

Nothing more than the casual bite of a common jail "cootie" is at the bottom of a $35,000 suit of Dr. Frederick Newton, Santa Monica chiropractor, against Mrs. Clara D. Ebert, the defense attempted to establish yesterday when the matter was tried before Judge Bishop. . . .—Los Angeles Times, June 4, 1926.

Accused of operating a "diploma mill designed wholly to issue diplomas to unqualified persons," Dr. Percy Purviance, president of the Berkeley Chiropractic College and Berkeley Chiropractic High School, will be named defendant in a suit brought . . . to show reason why his schools should not be closed.—San Francisco Examiner, June 9, 1926.

Charges against Arthur E. Pike, D. O., preferred by the Board of Osteopathic Examiners (mentioned in "News Items" of December, 1925) have been dismissed, according to the Long Beach Press Telegram of May 3, 1926.

Robert W. Roland was recently sentenced by the courts in Los Angeles to pay a fine of $100 following his plea of guilty to a charge of violation of the Medical Practice Act, according to a report by Special Agent Carter, who relates that Roland holds a naturopathic diploma issued by the Pasadena Chiropractic College, and is advertising the sale of Vivogen.

Dr. Jack Smitherman, colored physician and surgeon, yesterday was fined $25 for contempt of court by Judge Raymond I. Turney. Doctor Smitherman was charged with having written letters to the court saying that Miss Edith Johnson, charged with possessing a quantity of beer, was unable to appear because of sickness. Investigation disclosed that the woman was well enough to have appeared.—Los Angeles Examiner, May 9, 1926.

Federal Judge James yesterday fined Dr. Fred K. Strasser, Hemet physician, $500 for selling narcotics without making a record of the sale. . . .—Los Angeles Illustrated Daily News, May 25, 1926.) Prior mention has been made in "News Items" of May and June, 1926. Doctor Strasser has been called before the Board of Medical Examiners at the coming July meeting to show cause why his license should not be revoked.

Severely lecturing Dr. Orin R. Wakefield, Hollywood physician, for selling morphine to young girls, Judge Hardy sent the doctor to the county jail for four years. According to testimony the physician sold forty morphine pills to Cleo Nerski, movie extra, who is now "taking the cure" at Norwalk. Doctor Wakefield testified he sold the girl the drug because she "needed it," but inspectors for the State Medical Board declared Miss Nerski, an addict, had received no narcotics since she went to Norwalk and was about ready to be discharged free from the habit. "It is a most despicable thing that a man of your standing in the community should stoop so low as to commercialize the cravings of these poor creatures for drugs," Judge Hardy declared. "However, in view of your professional skill and standing in the community, I am not going to give you the maximum sentence of six years. (Los Angeles Examiner, June 2, 1926.) Previous mention was made in "News Items" of May, 1926.

Arthur E. Webb, who recently gained notoriety, it being alleged that he assumed the credentials of Rupert E. McKibbon and learned how to forge his signature and where he kept his bank account, thereafter being arrested in Alaska, as mentioned in "News Items" of February, 1926, is reported as again incarcerated in McNeil's Island on a charge of violation of the national narcotic law.

Further investigations by the proper authorities were recommended in a verdict this morning by the coroner's jury following investigation into the death of Evelyn Thayer Bancroft, age 28, 740 North Lake Avenue, held at the funeral parlors of C. F. Lamb and Salisbury Company. The jury in this document named Dr. Carl J. Weberg as the chiropractor who had treated the young woman four years ago and stated the cause of death to have been spinal paralysis from a dislocation of the fifth cervical vertebra. . . .—Pasadena Star News, May 14, 1926.

Bon Yee, Chinese herb doctor, was recently arrested in Santa Rosa on a charge of violation of the Medical Practice Act, according to the Santa Rosa Press Democrat of May 27, 1926.

Herbert E. Young recently pleaded guilty to a violation of the Medical Practice Act in San Bernardino and was sentenced to serve ninety days in the county jail, said sentence being suspended for a period of two years on condition that the defendant does not violate the Medical Practice Act during the period of his probation. Young's business card refers to him, among other things, as a "philosopher of spinal therapy."

Bertram Ball, D. D. S., was fined $500 June 4, according to the New York Times, for practicing medicine would be taken to the United States Supreme Court, if necessary, to test the constitutionality of the state law. Doctor Ball is said to have prescribed medicine for the kidneys of a patient he treated for pyorrhea.—Journal A. M. A., June 12, 1926.

Health education is a good deal like stocking a stream with fish. When you go back to drop a line, you may find some of them rising to the bait, but probably most of them have gone away.—Ohio Health News.

It is a mark of maturity to differentiate easily and naturally between personal or social opposition and intellectual opposition.—A. J. Nock, Harpers' Magazine.

Sixty-two per cent of all hospital beds in this country are financed by government agencies—national, state, county, and city.—J. A. M. A.

READERS' FORUM

BUSINESS IS BUSINESS!

Editor of CALIFORNIA AND WESTERN MEDICINE—Enterprise in business is to be both admired and praised under normal circumstances. But when it gets to the limit of a *mail order house* shipping a "blank cartridge pistol" together with plenty of cartridges to a child in a ward in a hospital free bed, and then making a collect charge for express against the hospital, we think it about time to protest.

A package so wrapped as to disclose nothing of its contents and addressed to Melvin B. ——, Saint Joseph's Hospital, San Francisco, California, came by express to the hospital, with a collect charge of 64 cents on it. Thinking the package contained something useful, the hospital paid the charges.

A boy of 12, seriously ill for a year in a hospital and confined to bed or wheelchair, a nonpaying patient, ordered the pistol by mail out of such money as he had been hoarding for a year. Inside the package was the firm name of Johnson Smith & Co., Racine, Wisconsin.

The shipper of this package knew that it was going to a hospital. Perhaps that is why the cartridge boxes bore this legend: "Loaded with a special grade of powder giving the loudest possible report."

It seems rather worse than an affront for a mail order house to inveigle a hospital into paying 64 cents express charges to deliver a 50-cent pistol (that being the price according to the enclosed list), and for a nonpay patient.

The attending surgeon came in just as the patient was preparing to load and fire. A powder burn from this toy can destroy eyes, disfigure faces, and the powder burns from such nuisances frequently produce tetanus.

ETHAN H. SMITH, M. D.

Sonoma, California, June 11, 1926.

Dear Editor—Kindly permit me to congratulate you on the splendid journal you are giving to the medical profession. It gives to its readers help, service, knowledge, inspiration, pleasure, and points out not only the good, the strong, and the lovable points in our calling, but also our shortcomings and our weak points.

Enclosed please find my check for renewal, and allow me to thank you for the good I have received by reading your journal.

S. BOOLSEN, M. D.

The following extracts from an article by W. R. P. Emerson (Am. Jour. Med. Sciences) carry an important message to all physicians:

The health problem aside from its end result—disease—is left largely to the mercies of anyone who may chance to be interested in it—no man's land—where is found the dietitian, physical educator, social worker, teacher, and others who in a well-organized health plan would be valuable aids and adjuncts.

The victim of this condition of affairs is the growing child and back of it loom sickness and death—a morbidity and mortality that increase with the complexities of modern life.

As yet school organization has been little affected by any serious attempt to meet the health needs of the child. The desirability of doing something in this direction is felt to some degree but the school authorities have gone no farther than to lessen their sense of responsibility by preaching health to pupils who by their own efforts alone are practically helpless. A great wave of printed matter has inundated teachers, affording them general information on many aspects of living and this must be passed on to their charges.

"Learning by doing" has influenced the school authorities and this has led to health chores and other devices for getting the new material over into the life of the child. Great organizations have capitalized this situation and its possibilities. For example, I have before me the instructions of an organization which has highly developed machinery for entering thousands of schools and homes. The first attack consists of requiring the child to perform eleven daily chores. By doing these he may expect to become well and strong. The chores range from the simple matters, such as carrying a clean handkerchief, to the more difficult one of having a bowel movement every day although no directions are given for finding and removing causes of constipation. The eleven chores, however, are only the beginning of the process, for directions go on in some forty-five separate pages of printed matter with extensive elaboration through a second, third and fourth series—something of a hygienic *cum laude* cumulation ending with a Phi Beta Kappa which calls for eternal vigilance in such matters as neatness of appearance; keeping surroundings sightly and sanitary; personal control of ventilation and temperature; cheerfulness, straight-forwardness, cleanmindedness, doing one thing at a time and the most important first; care for the health of others; playing fair; kind acts; a balanced diet; reading matter held twelve inches from the eyes; proper attention to elimination; deep breathing; sleeping without a pillow; washing hair and scalp!

This bewildering rolling up of hygienic proprieties reminds one of the details of the Mosaic code, only that was not taken all at once.

Rules which call for drinking as much milk as possible are not sound because the using of milk to quench thirst is bad practice, as is also the continuation of a liquid diet after infancy. Another of the commandments is "Drink at least four glasses of water a day." Here again no account is taken of the very common practice of washing food down with water and if the child takes as much as a quart of milk a day eight glasses of liquids is excessive. The last of the list is "A bowel movement every morning." Consequently large numbers of children form the habit of taking physic, suppositories or enemas, every day of their lives in order to secure this result.

"Testimonials" from children are published and given as wide circulation as has been given those for patent medicines. Here are samples published by the staff of a state public health association. A boy in the fourth grade writes, "My face was pale and white and I started eating cabbage, carrots, radishes, corn and potatoes, and now I have a good color." The boy goes on to say, "I got into the habit of going to bed at seven o'clock and getting up at six o'clock by wanting to be able to mark my score card. . . . I did my chores twelve weeks and didn't forget a clean handkerchief once. Because I did my chores I got a squire's pin." Another boy—age not given—writes, "I wash my hair with emulsified cocoanut oil at least once a month. If you had done this, grandpa, you would not have been baldheaded. I am never going to grow old for I take physical exercises daily and sit in good position that my bones may grow properly." Again, "I had the toothache before I started to do the chores but afterward I did not." And, "If you eat good food you will be well and strong." It is a girl of eleven who writes, "I adore washing handkerchiefs so I do not mind the fourth chore at all."

To tell a child, "Do this and you will be well" is cruel. There is no greater fallacy taught under the guise of medical advice. The effect of the chore system as now used is to sanction expectations from certain practices which are entirely out of accord with experience and accurate knowledge. The child asks for health and he is given a medal! This is not honest treatment and amounts to a betrayal of his confidence. One of the end results of such methods is clearly seen in the reaction of the high school boy or girl who has reached the stage where he decides that all this health activity is "bunk" and he will have nothing to do with it.

You can't kick people into being nice to you. You can earn their respect and co-operation, and your value to the community will be increased thereby.—Ohio Health News, May 1, 1926.

There's now a car to every five people, which should limit each driver to four pedestrians.—Manila Bulletin.